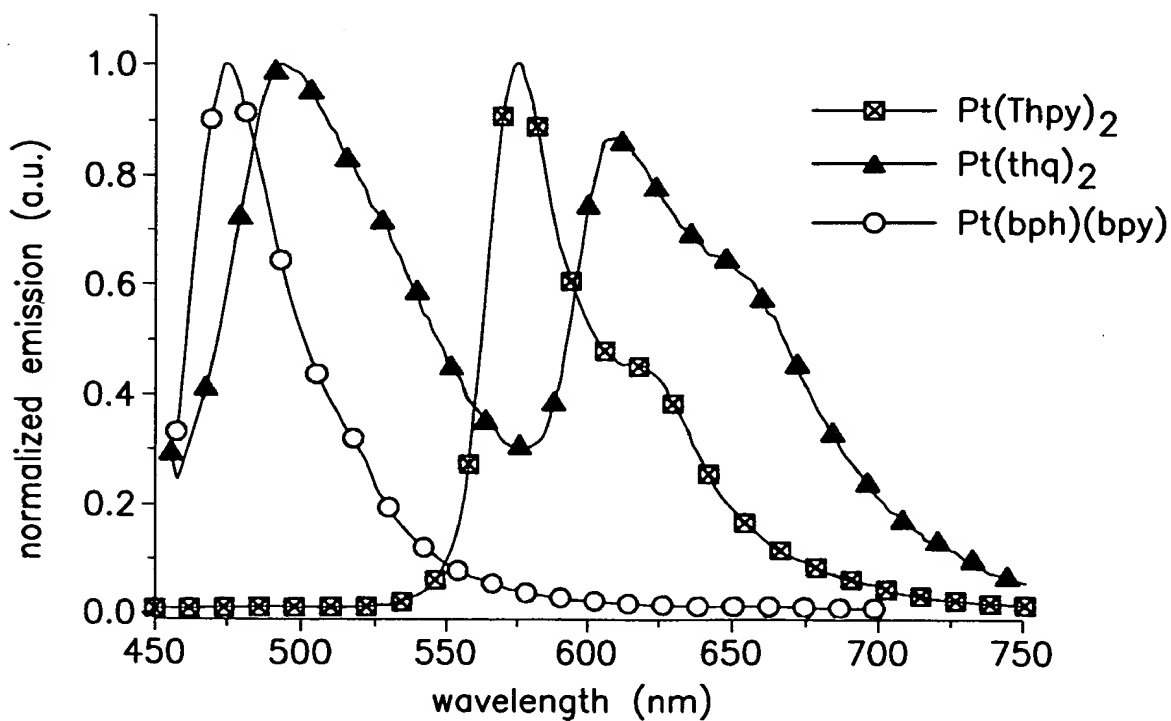


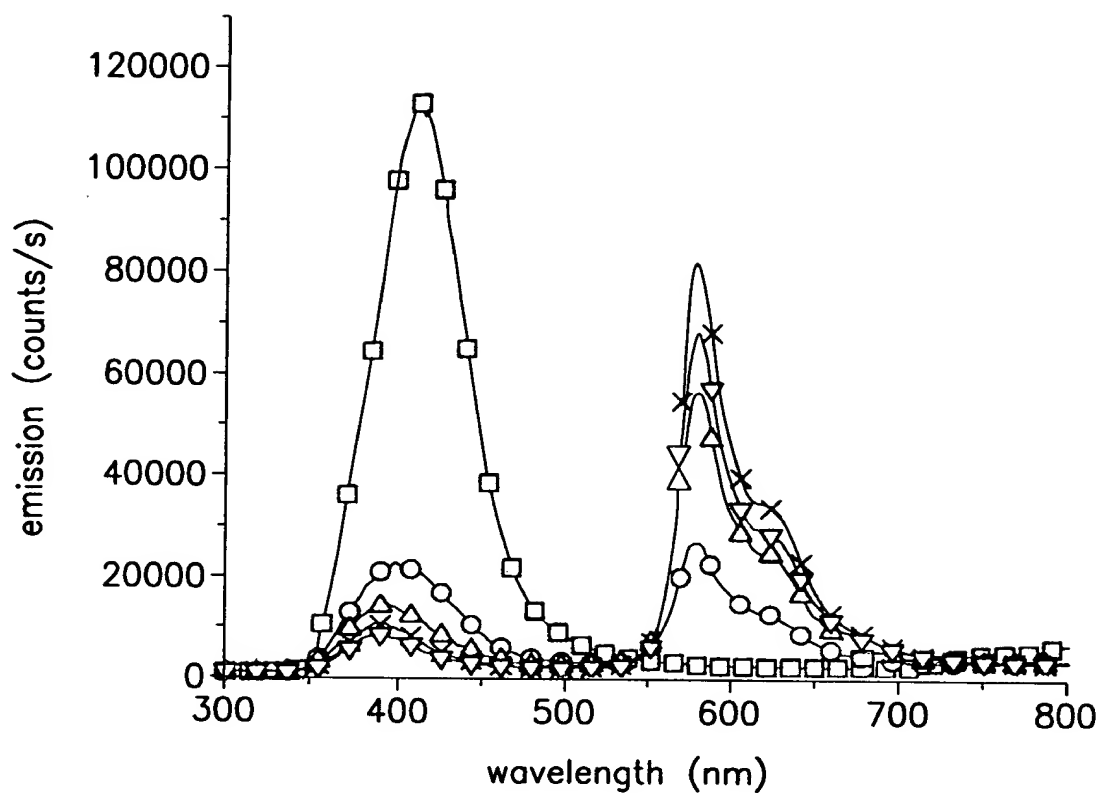
Electronic absorbance spectra of Pt(thpy)<sub>2</sub> , Pt(thq)<sub>2</sub> , Pt(bph)(bpy).

Fig. 1



Emission spectra of the complexes.

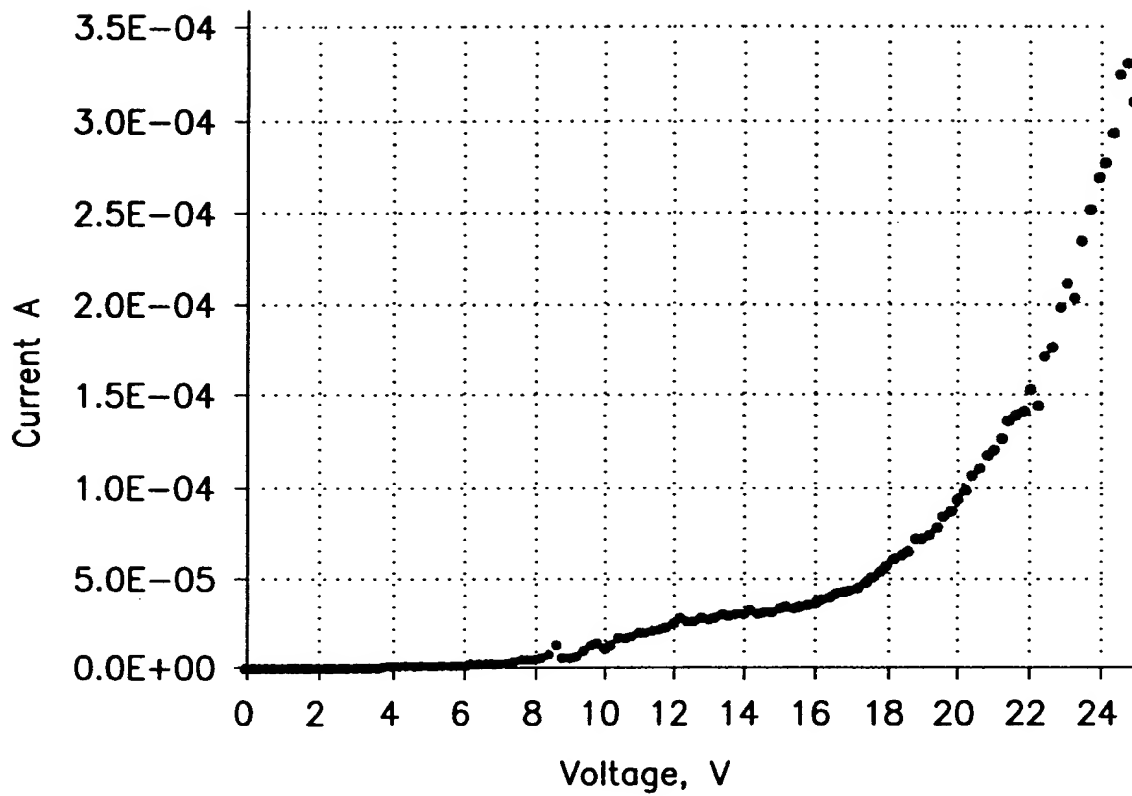
Fig. 2



Energy transfer from PVK to  $\text{Pt}(\text{thpy})_2$  in the solid film.

- PVK
- PVK:Pt 100:1.7
- △— PVK:Pt 100:3.9
- ×— PVK:Pt 100:6.3
- ▽— PVK:Pt 100:9.8

Fig. 3



I-V characteristic of the device.

Fig. 4a

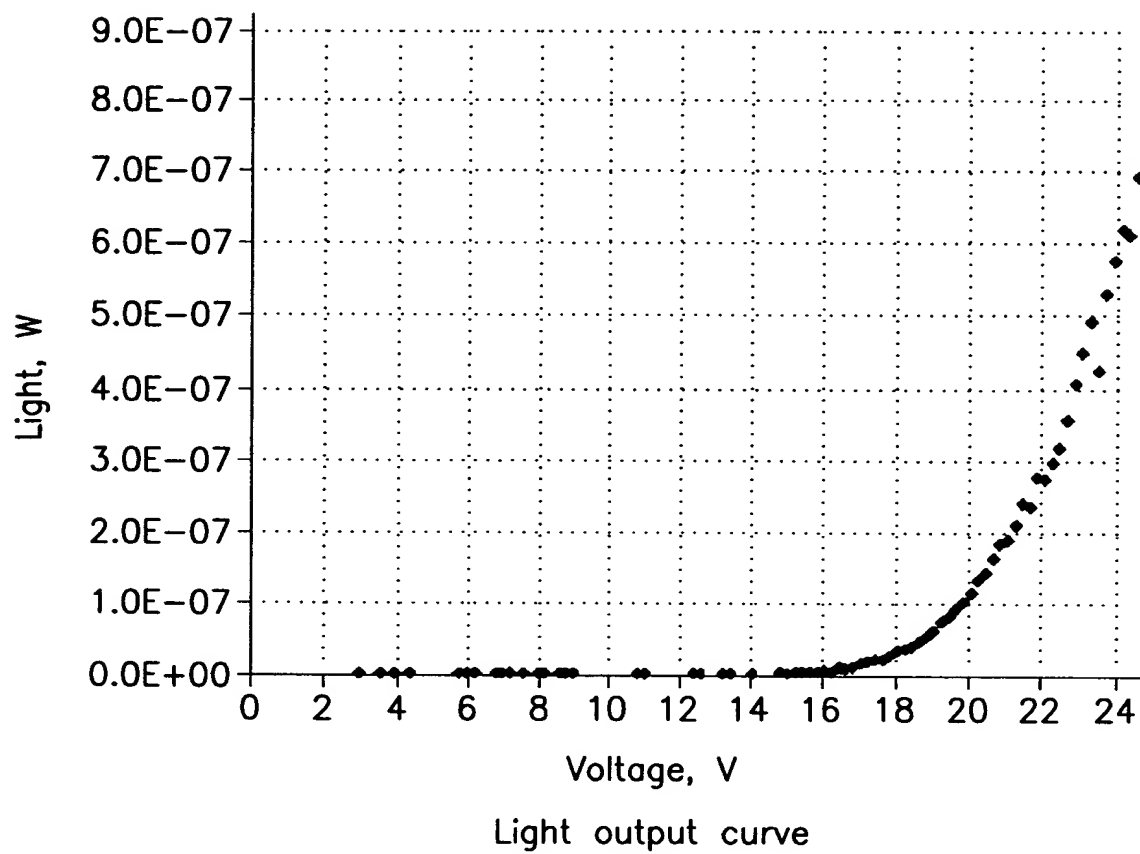
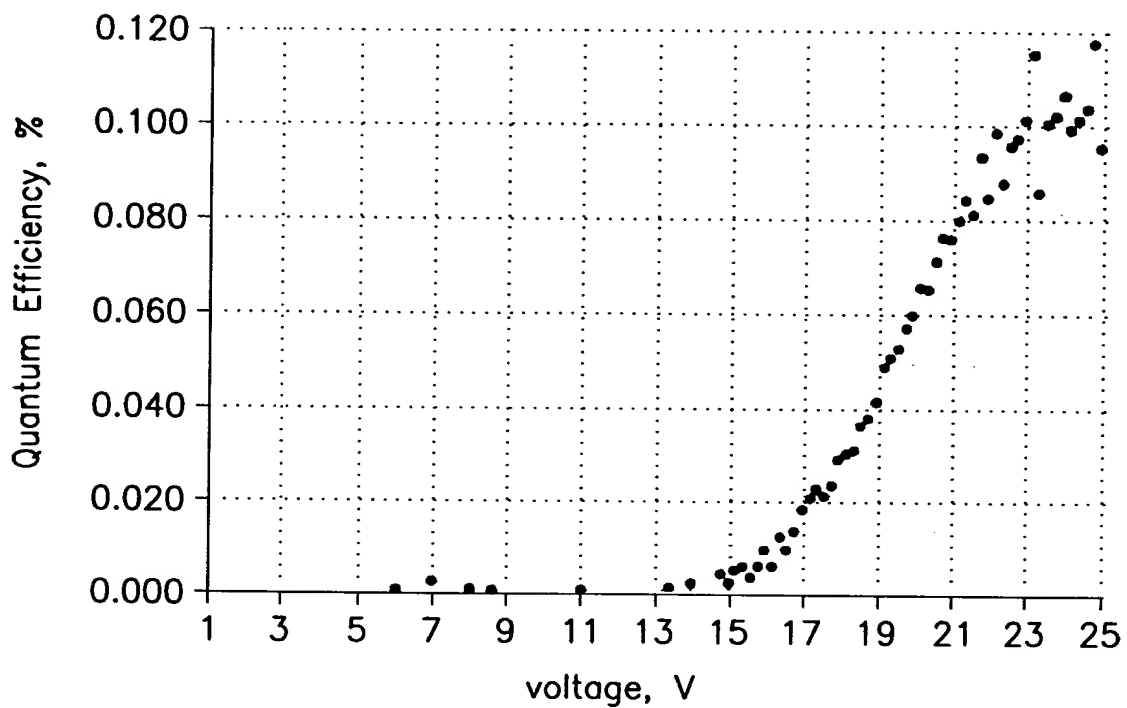


Fig. 4b



Quantum efficiency of the device as a function of applied voltage.

Fig. 5

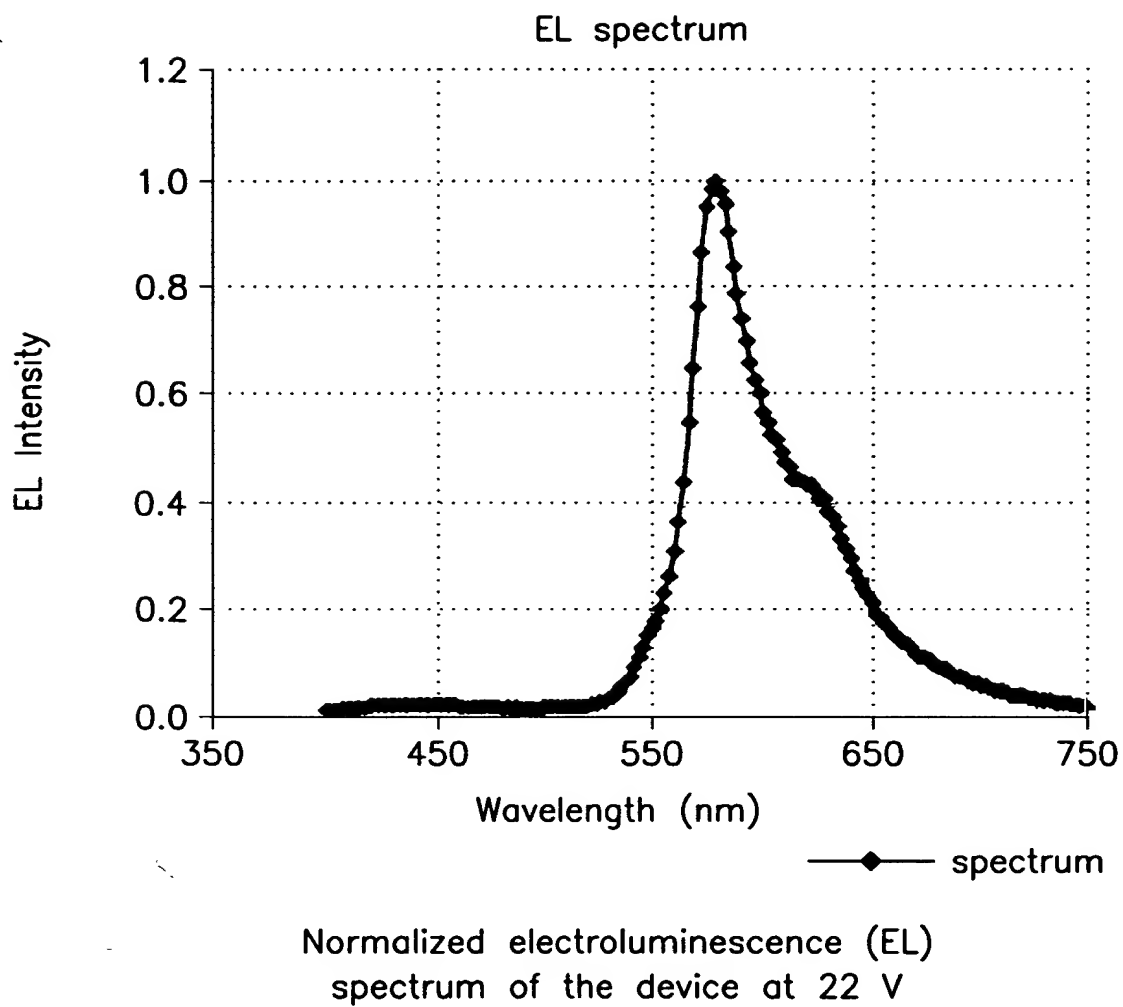
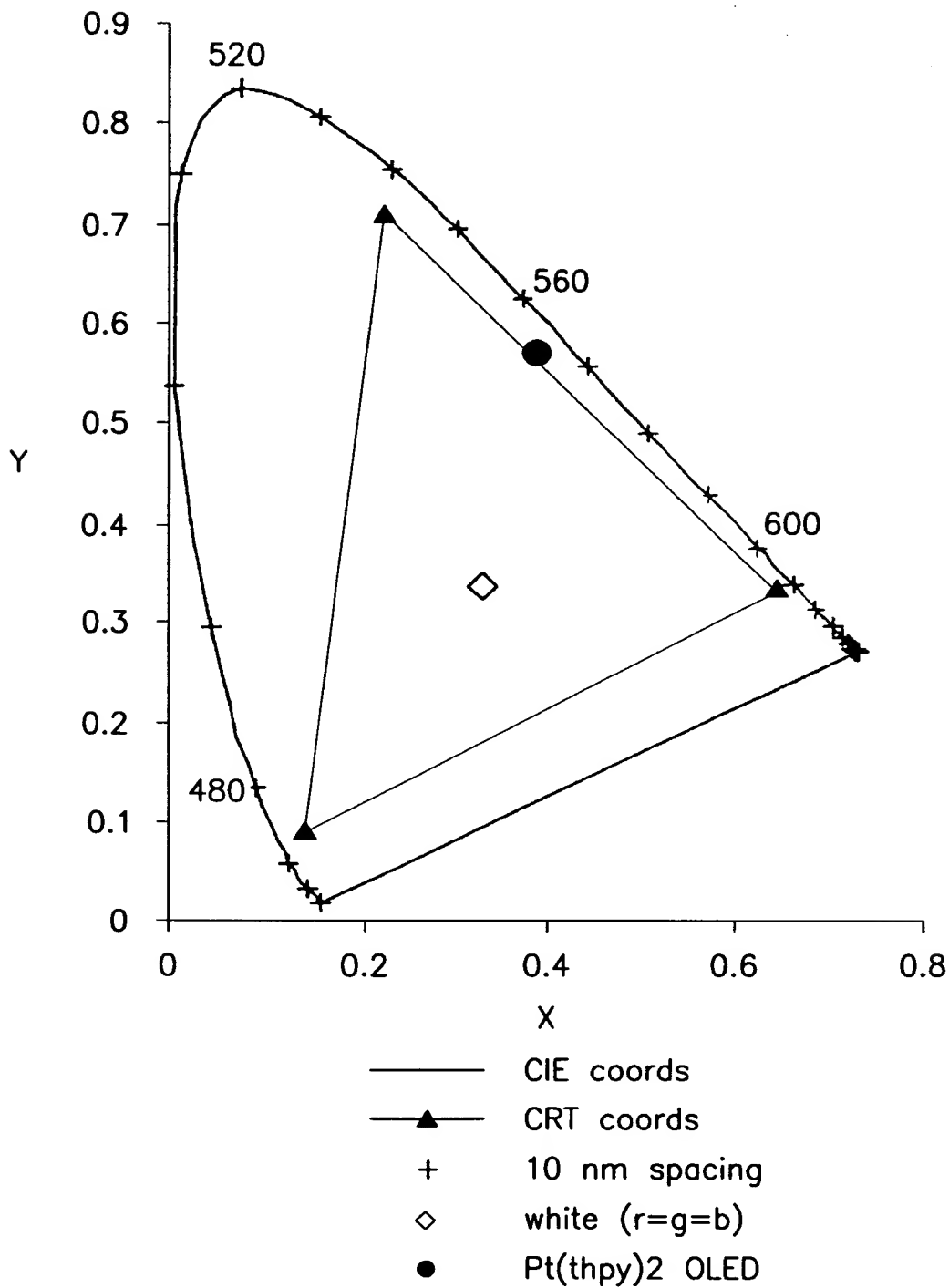


Fig. 6a



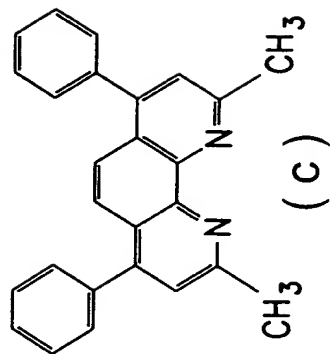
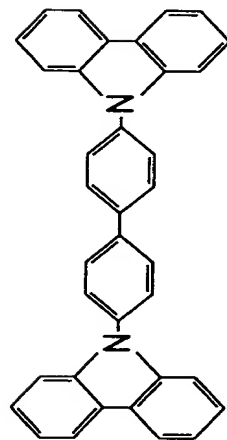
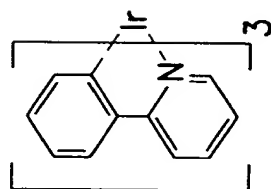
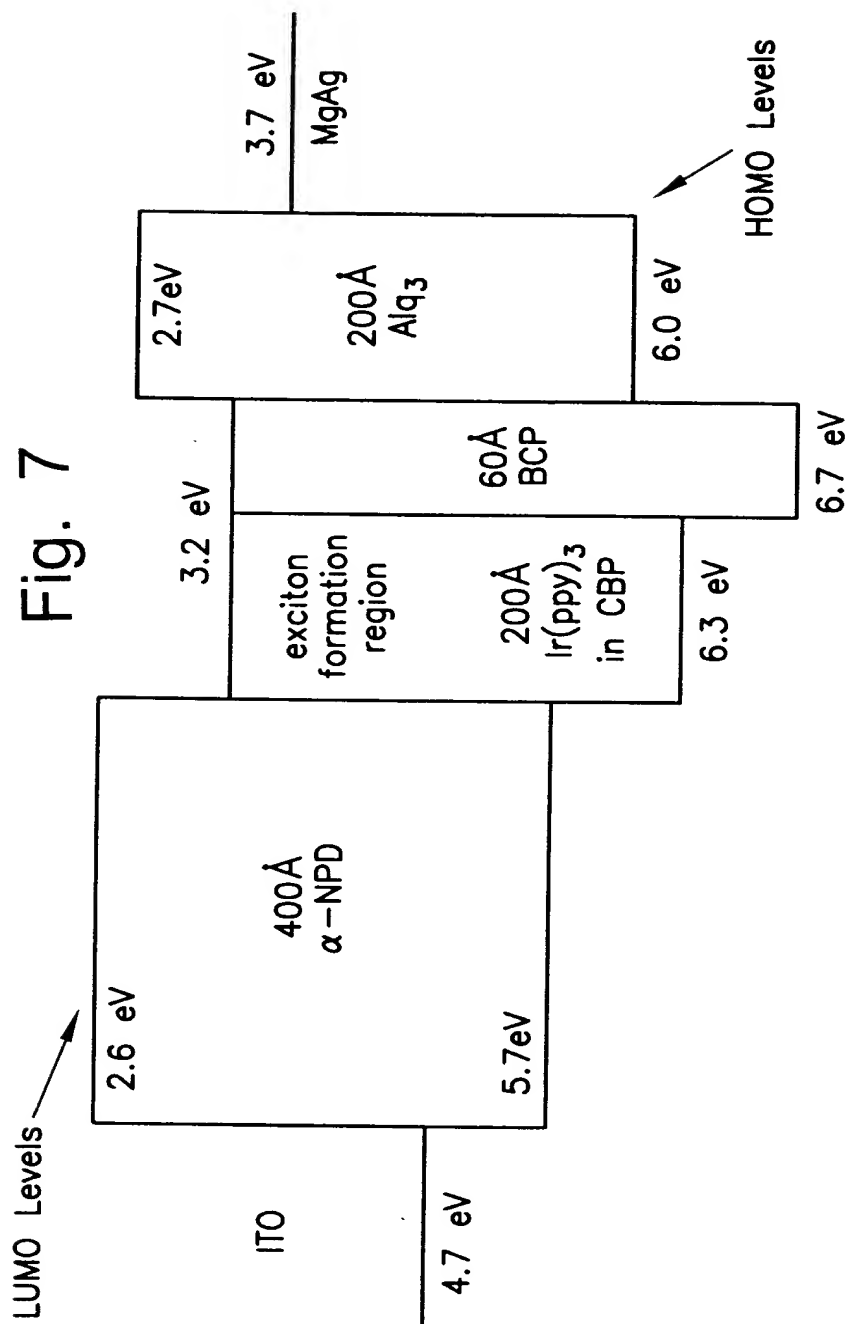
# CIE Coordinates of Pt(thpy)<sub>2</sub> based OLED



CIE diagram based on normalized EL spectrum

Fig. 6b

Fig. 7





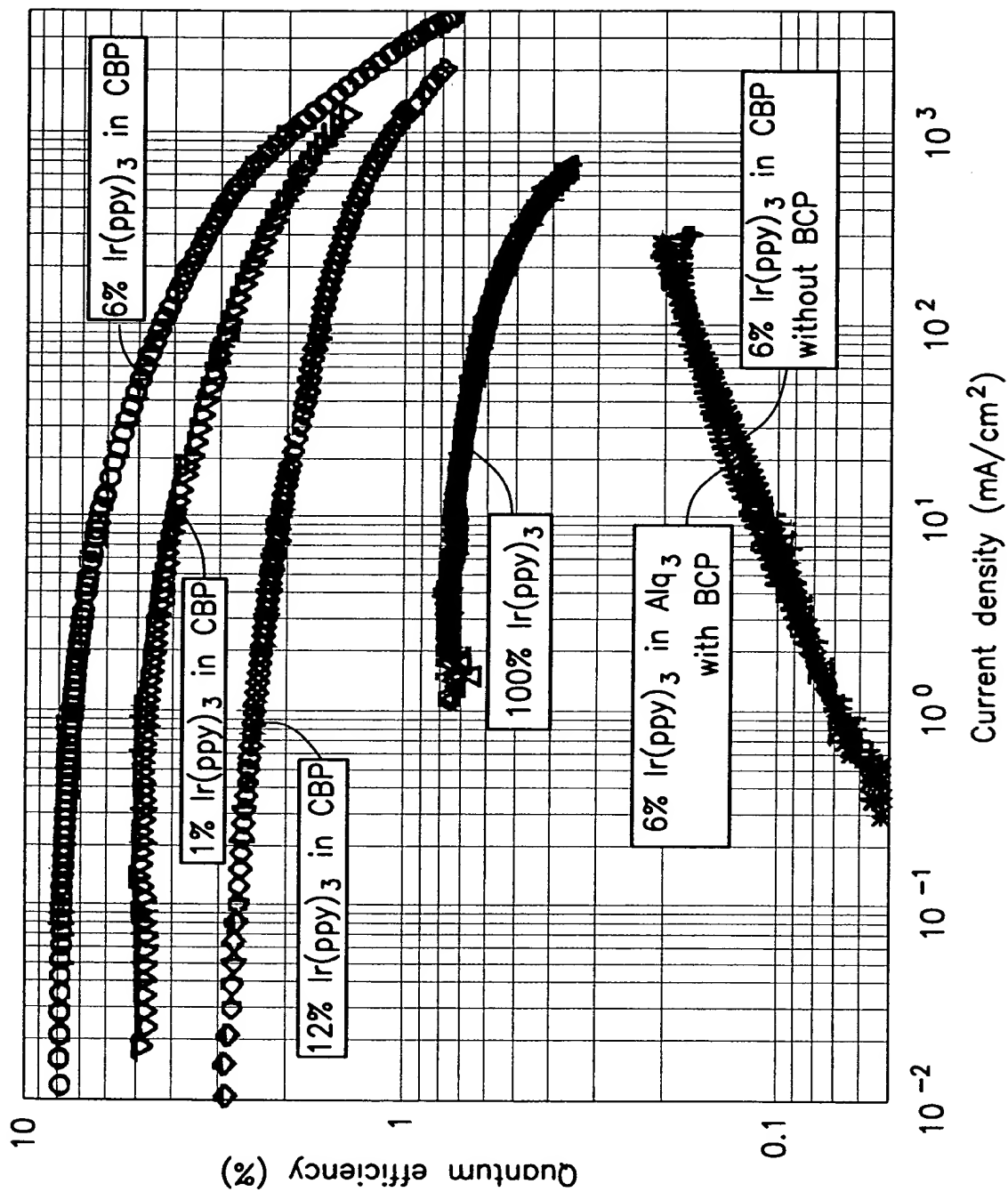


Fig. 8

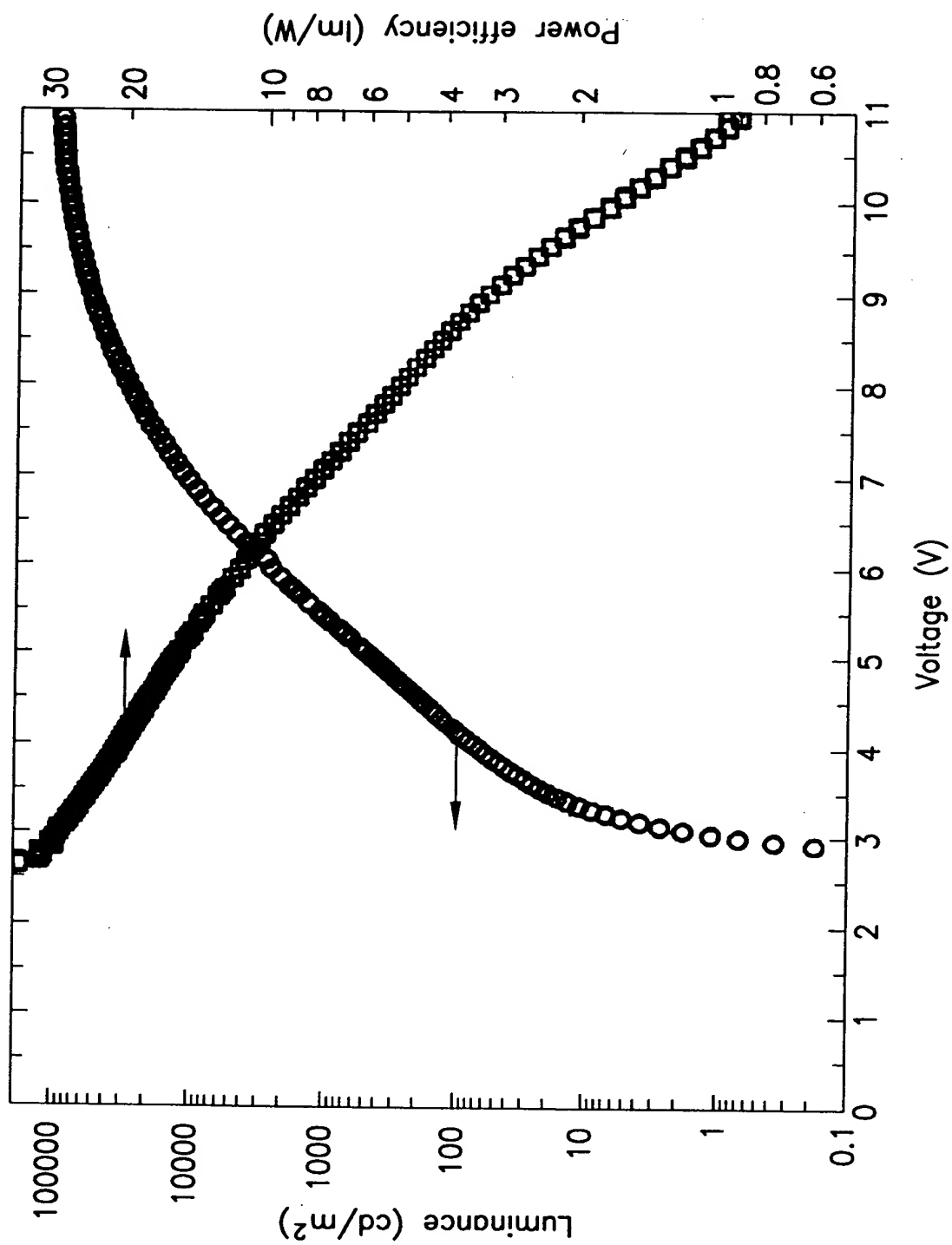


Fig. 9

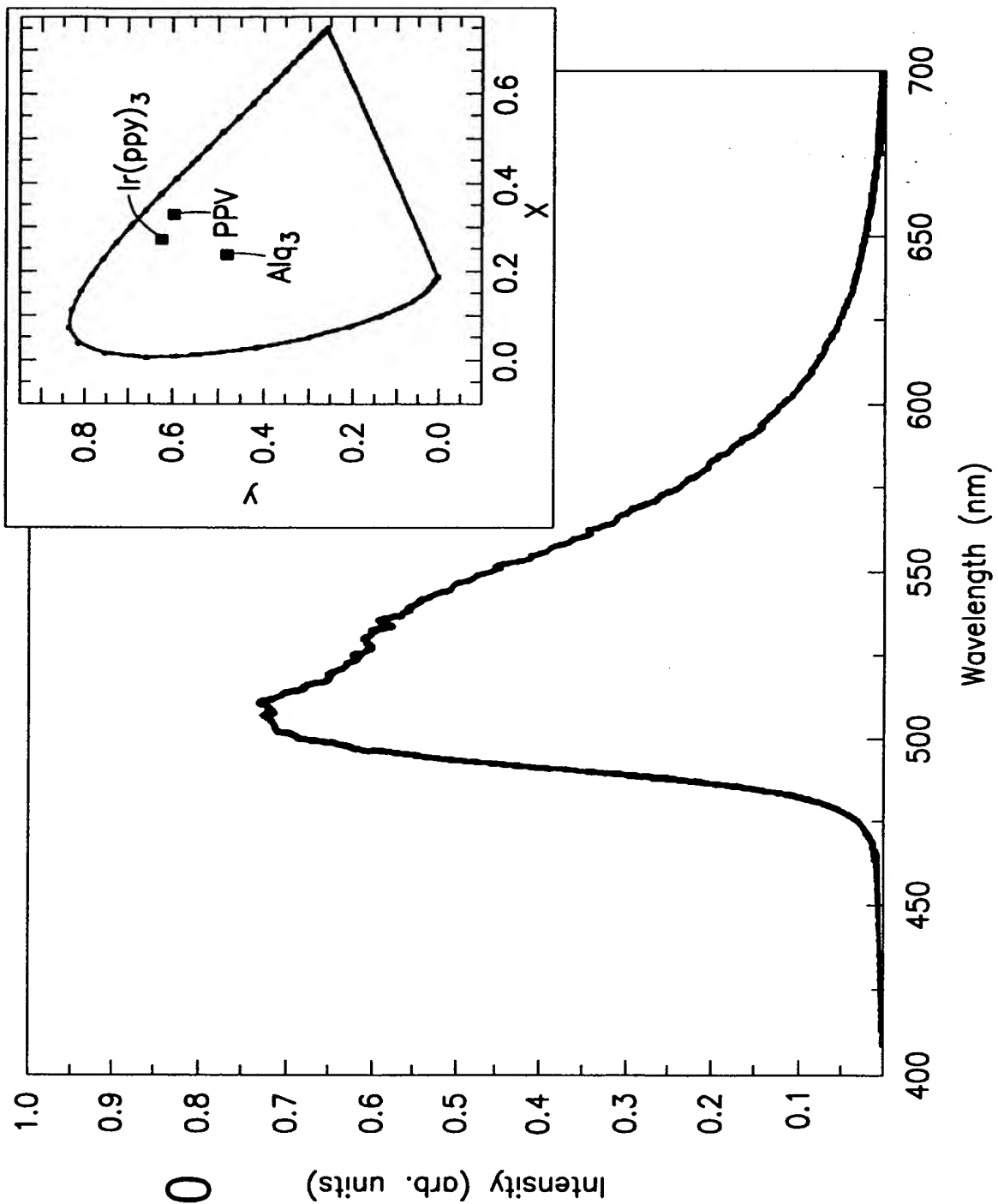


Fig. 10

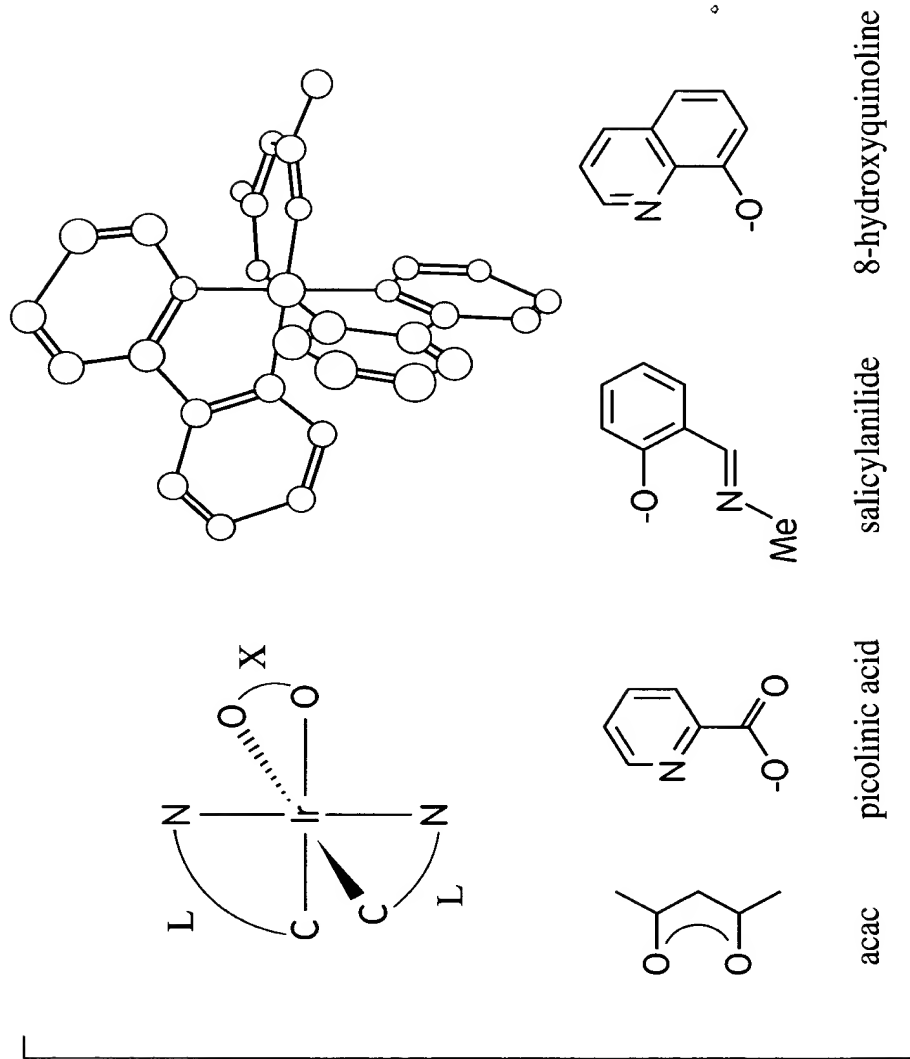


Fig. 11

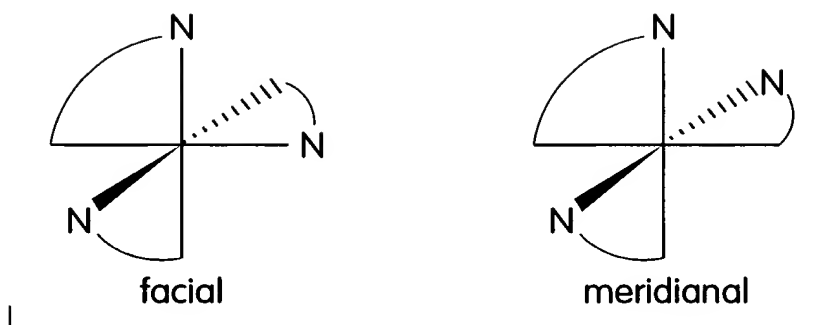


Fig. 12

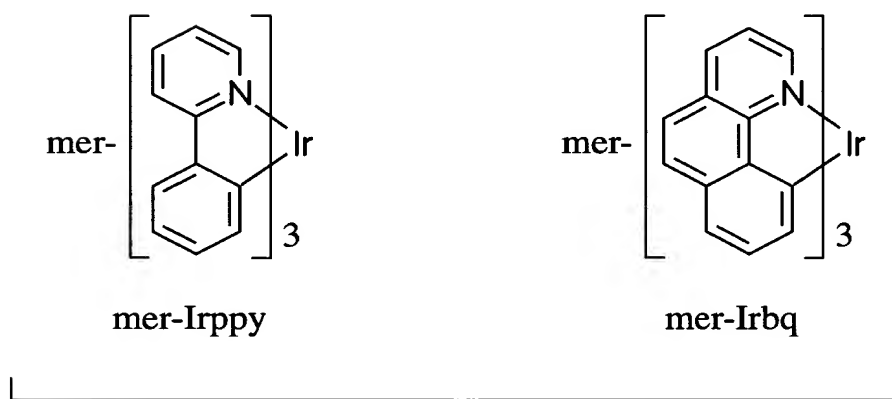


Fig. 13

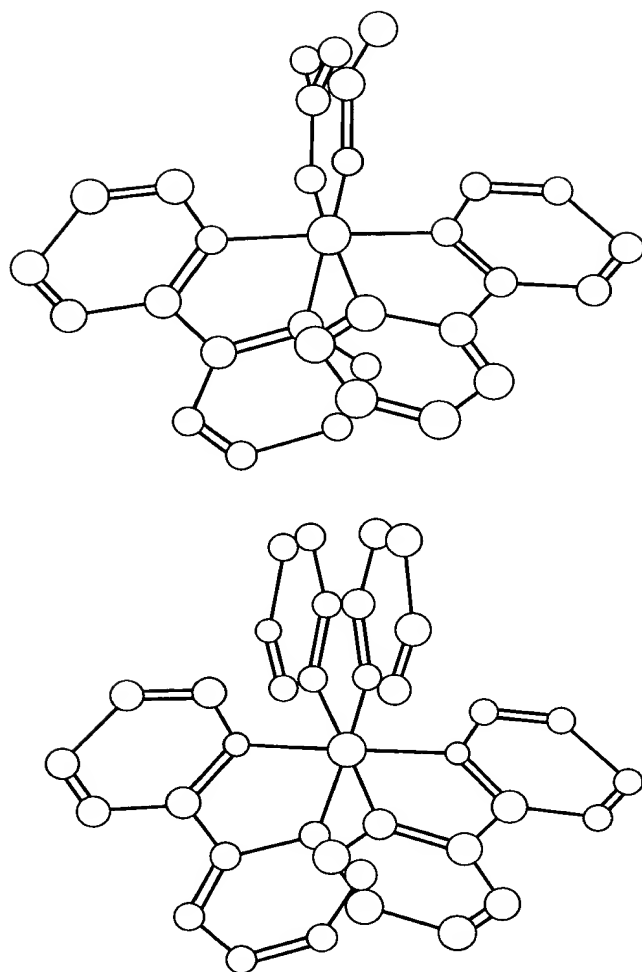


Fig. 14

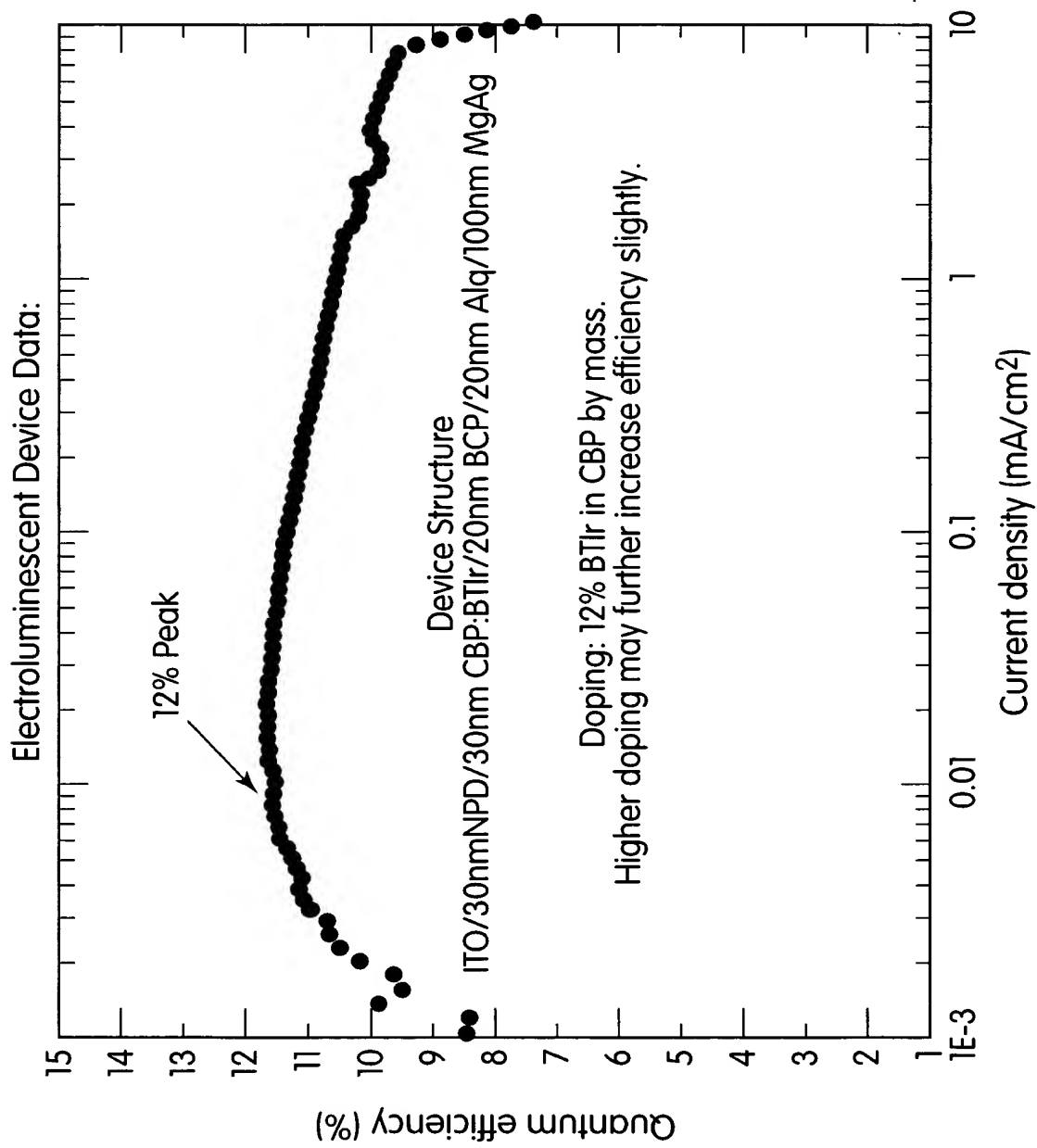


Fig. 15A

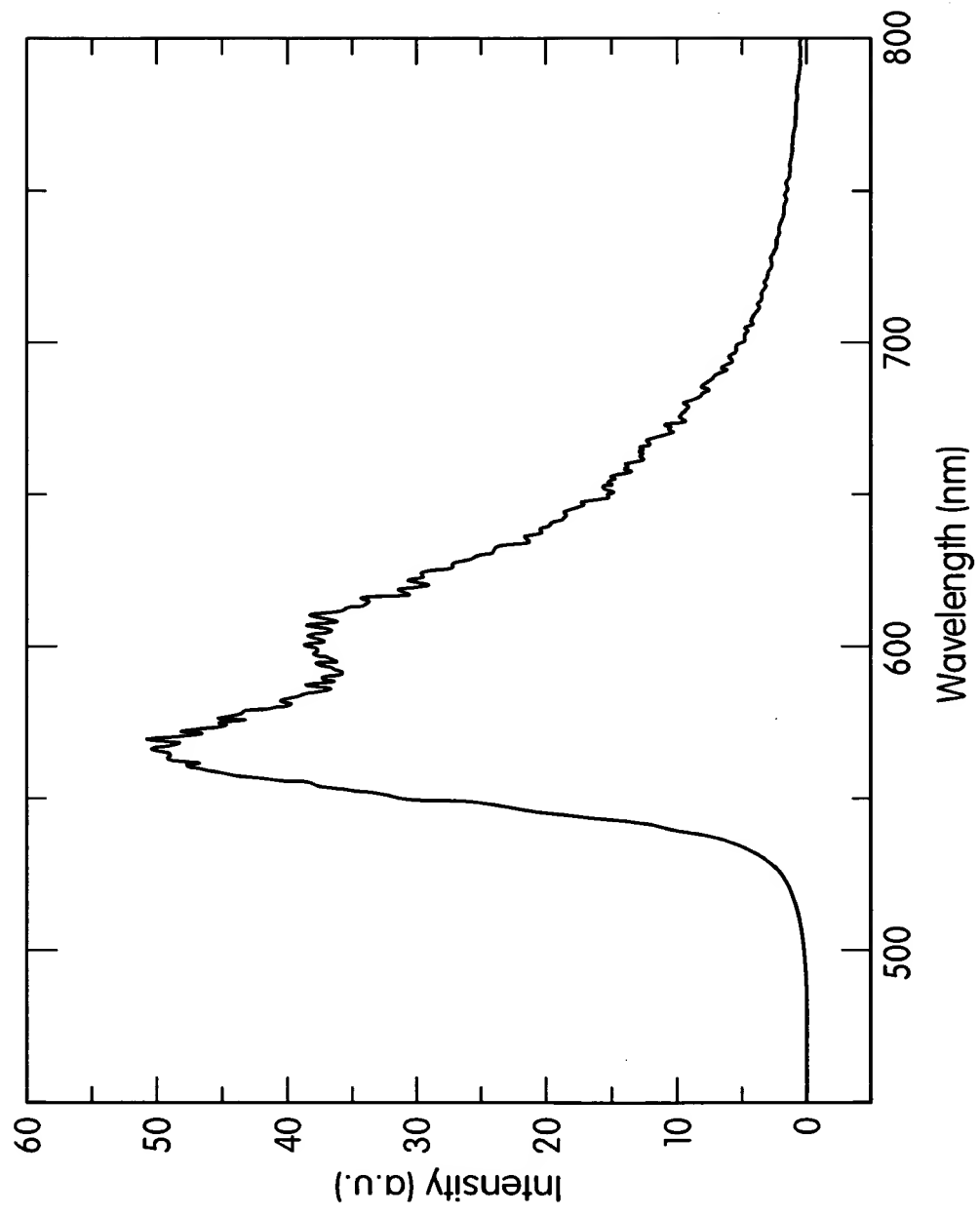


Fig. 15B



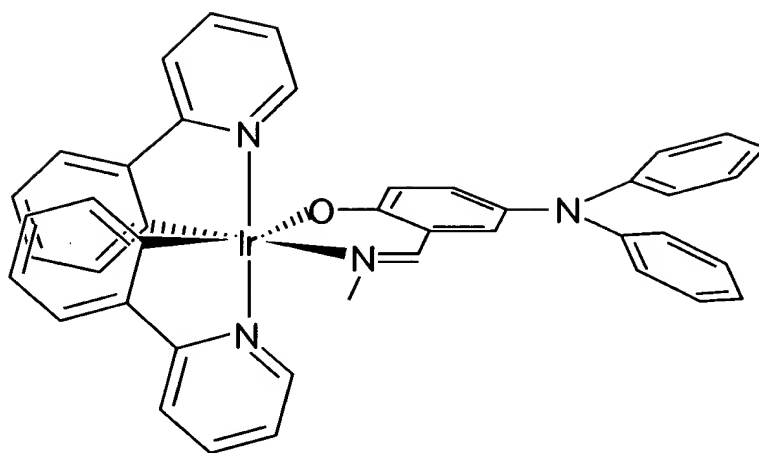


Fig. 16

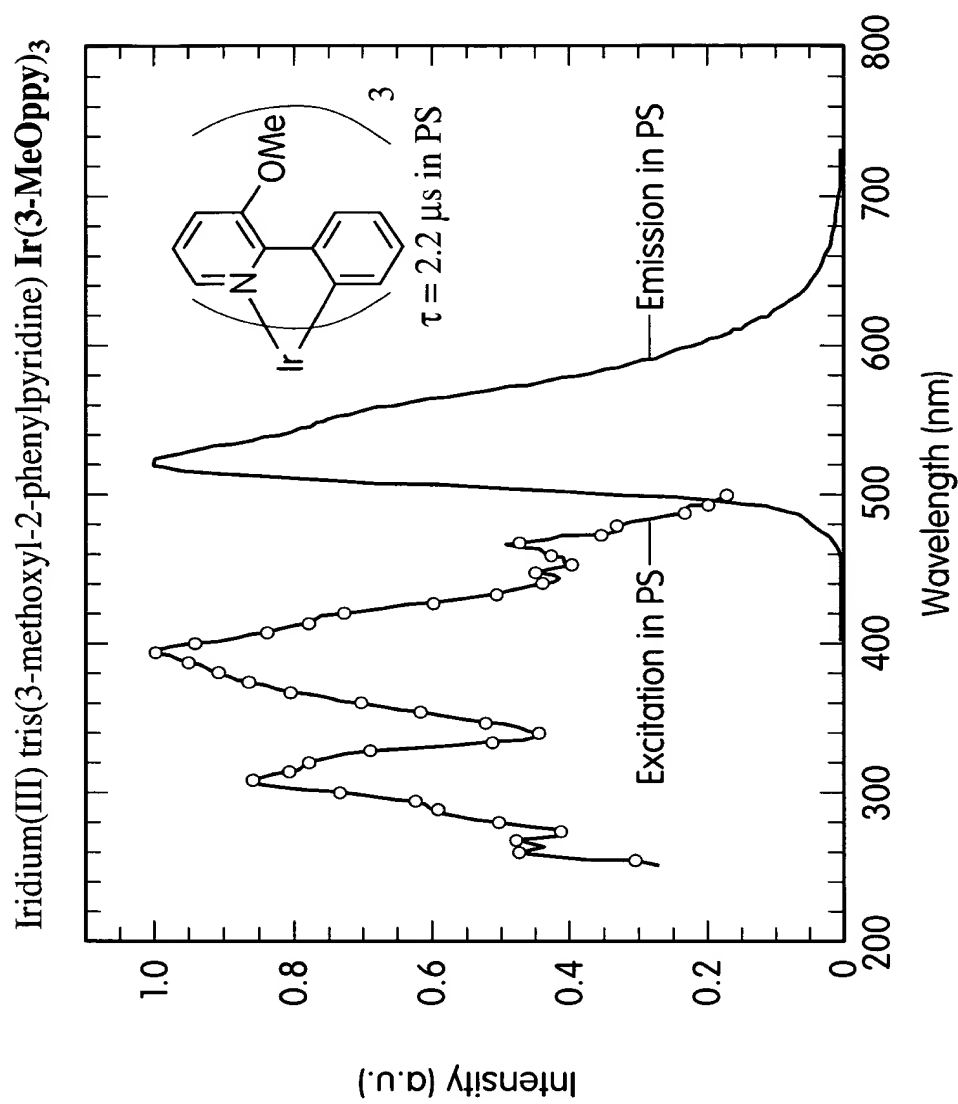


Fig. 17

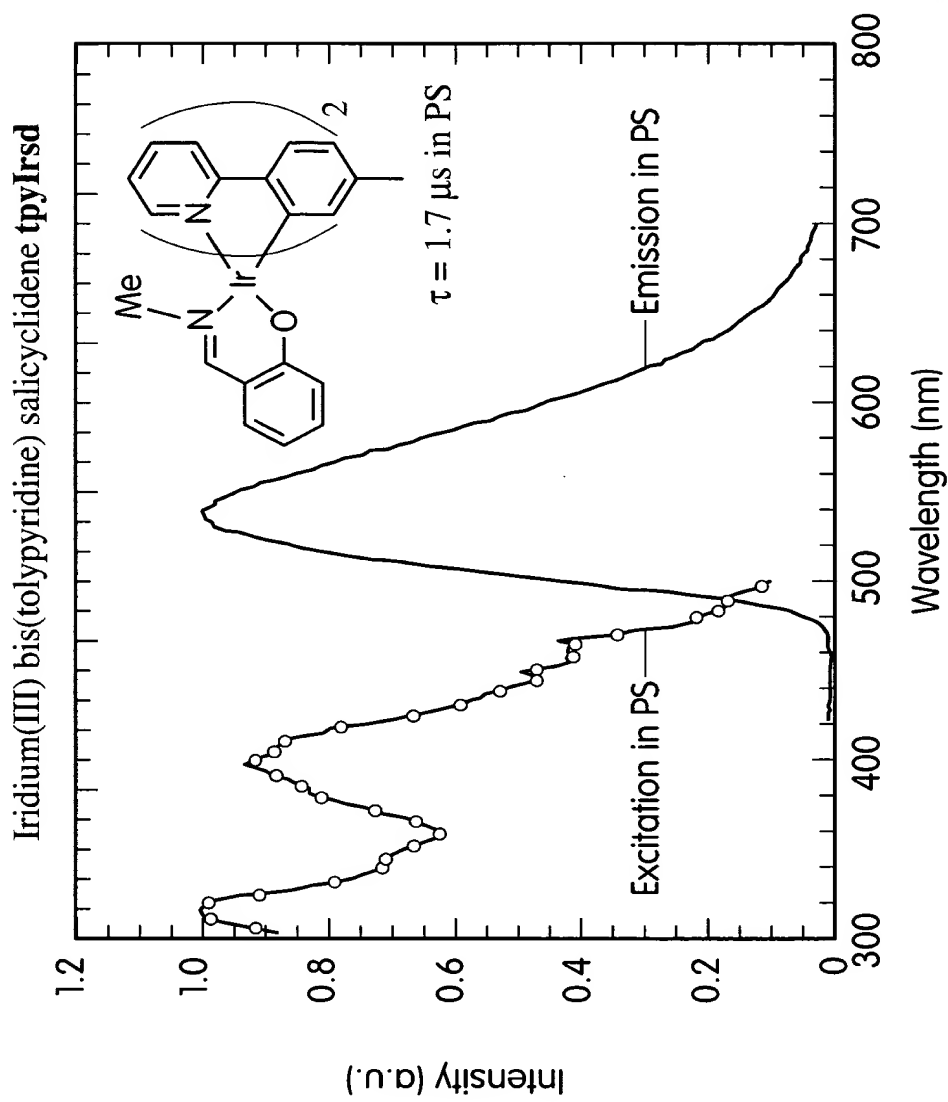


Fig. 18

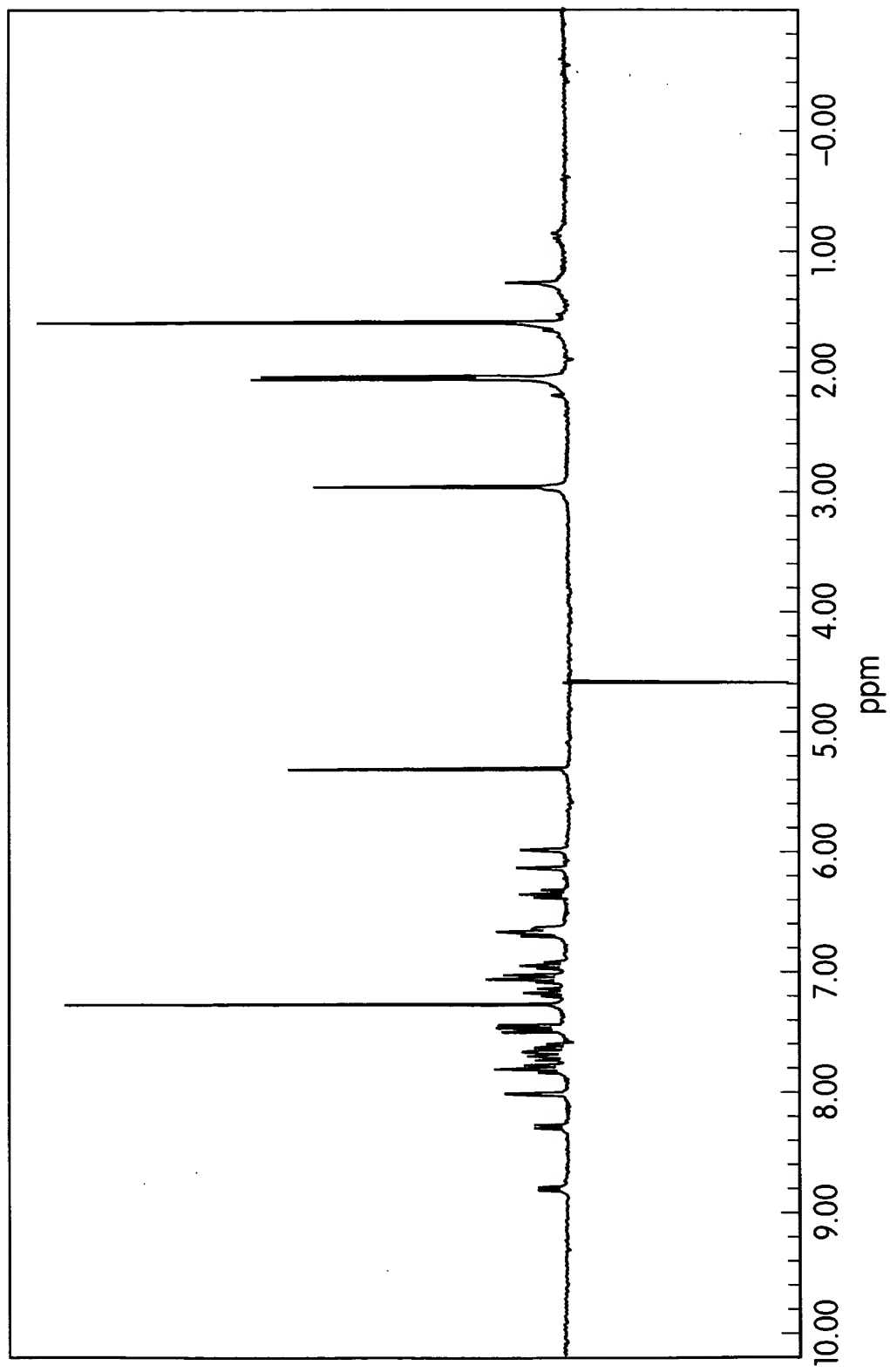


Fig. 19

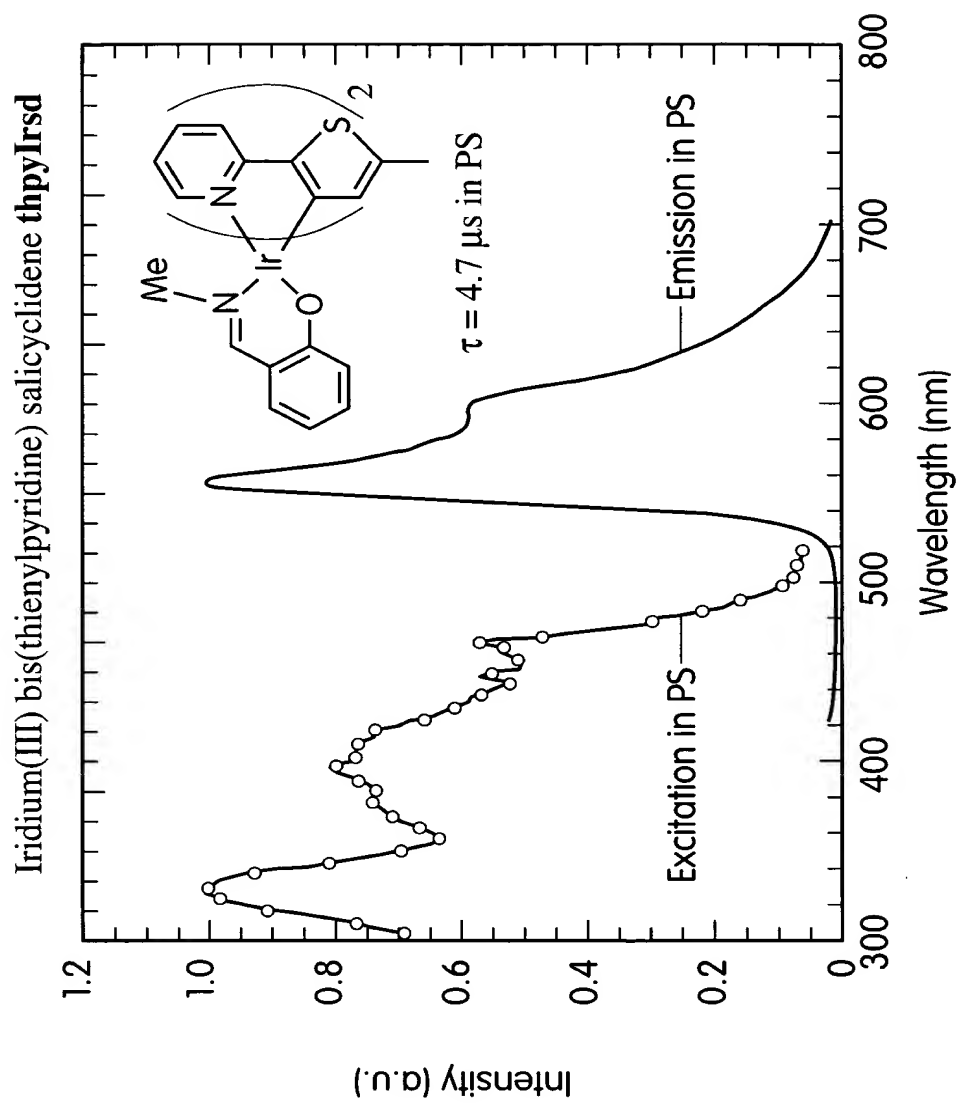


Fig. 20

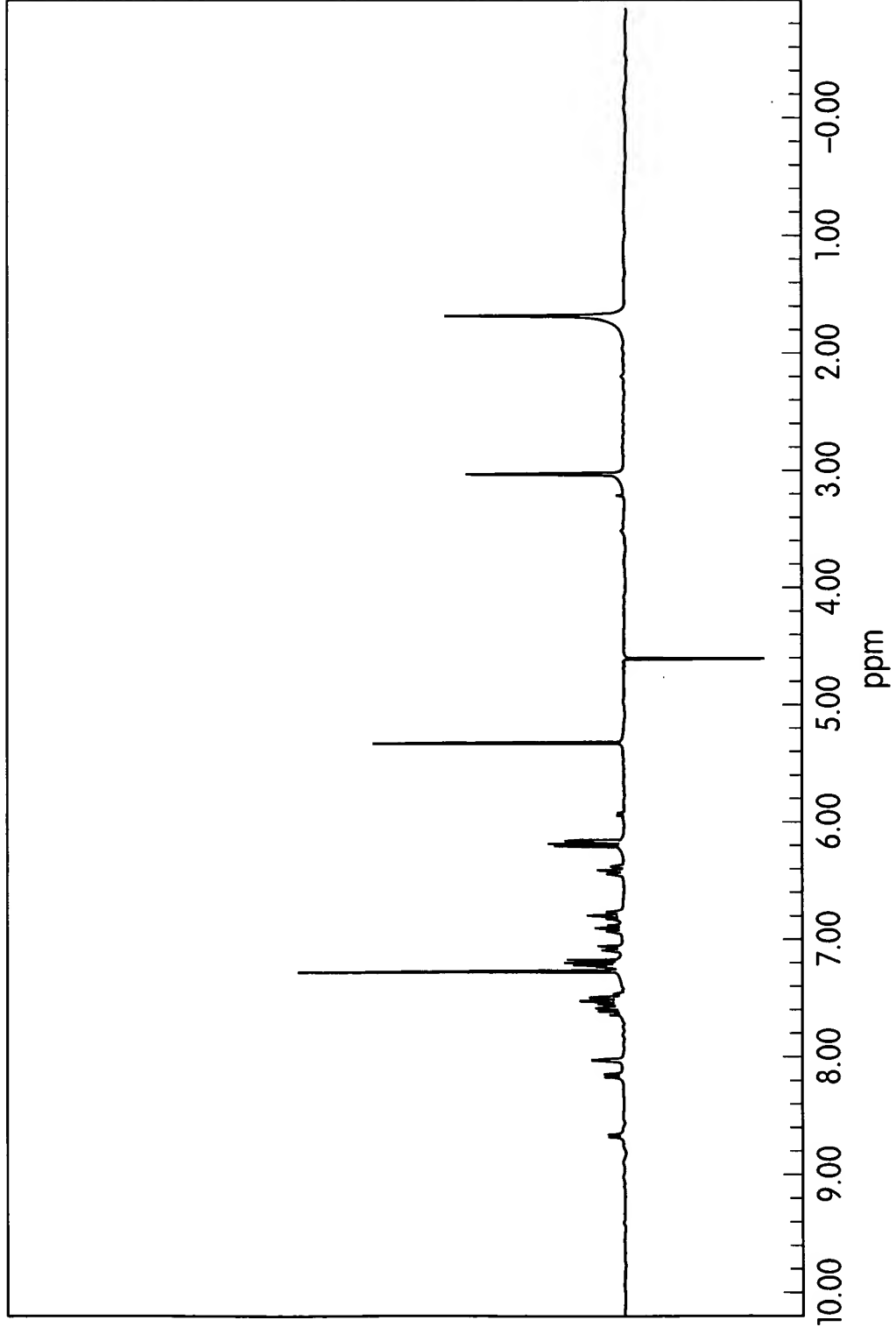


Fig. 21

Iridium(III) bis(2-phenylbenzothiazole) salicylidene **btIrsd**

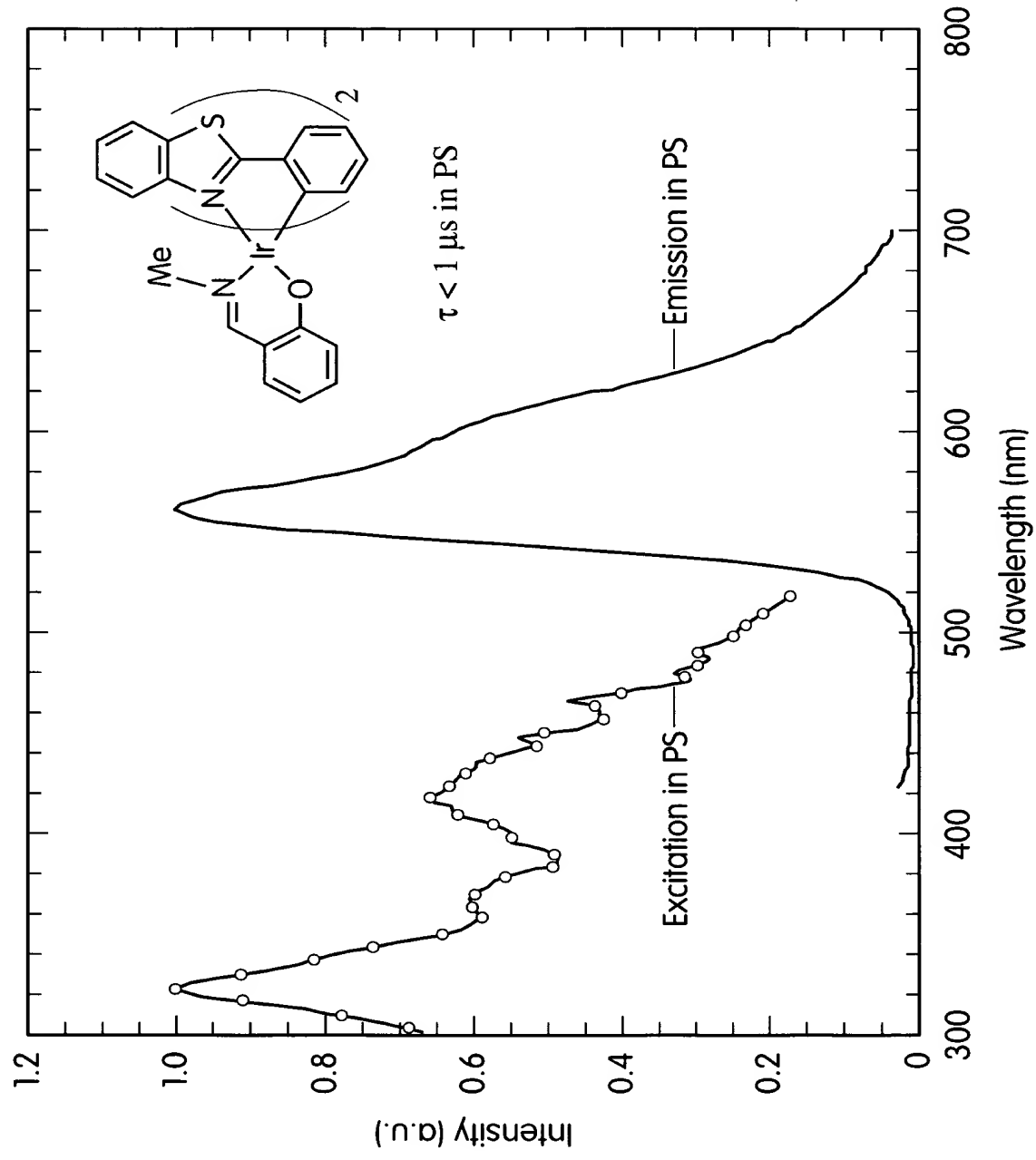


Fig. 22

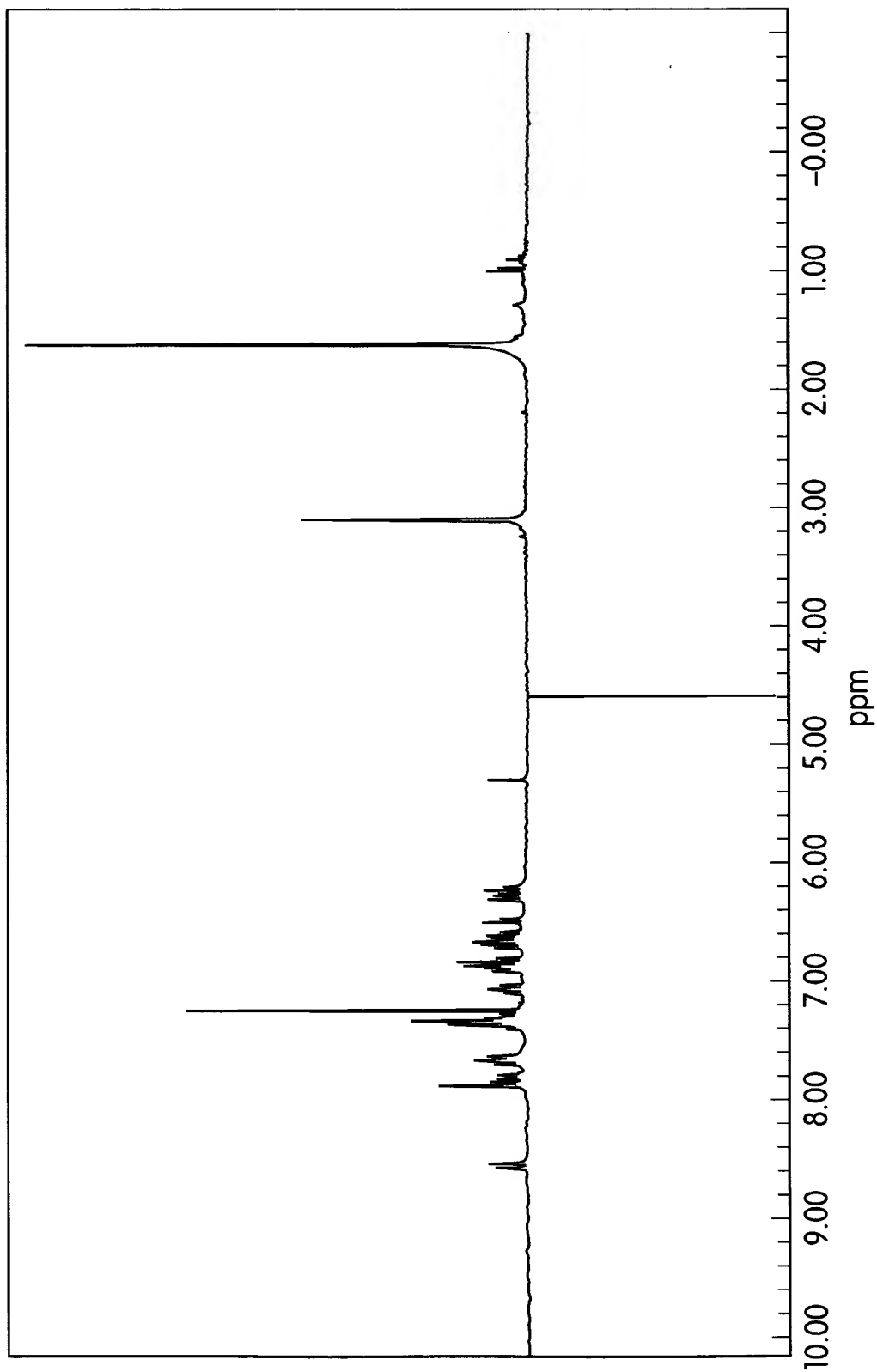
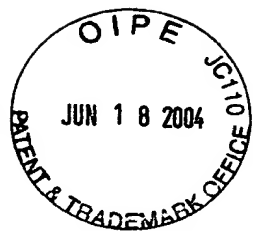


Fig. 23



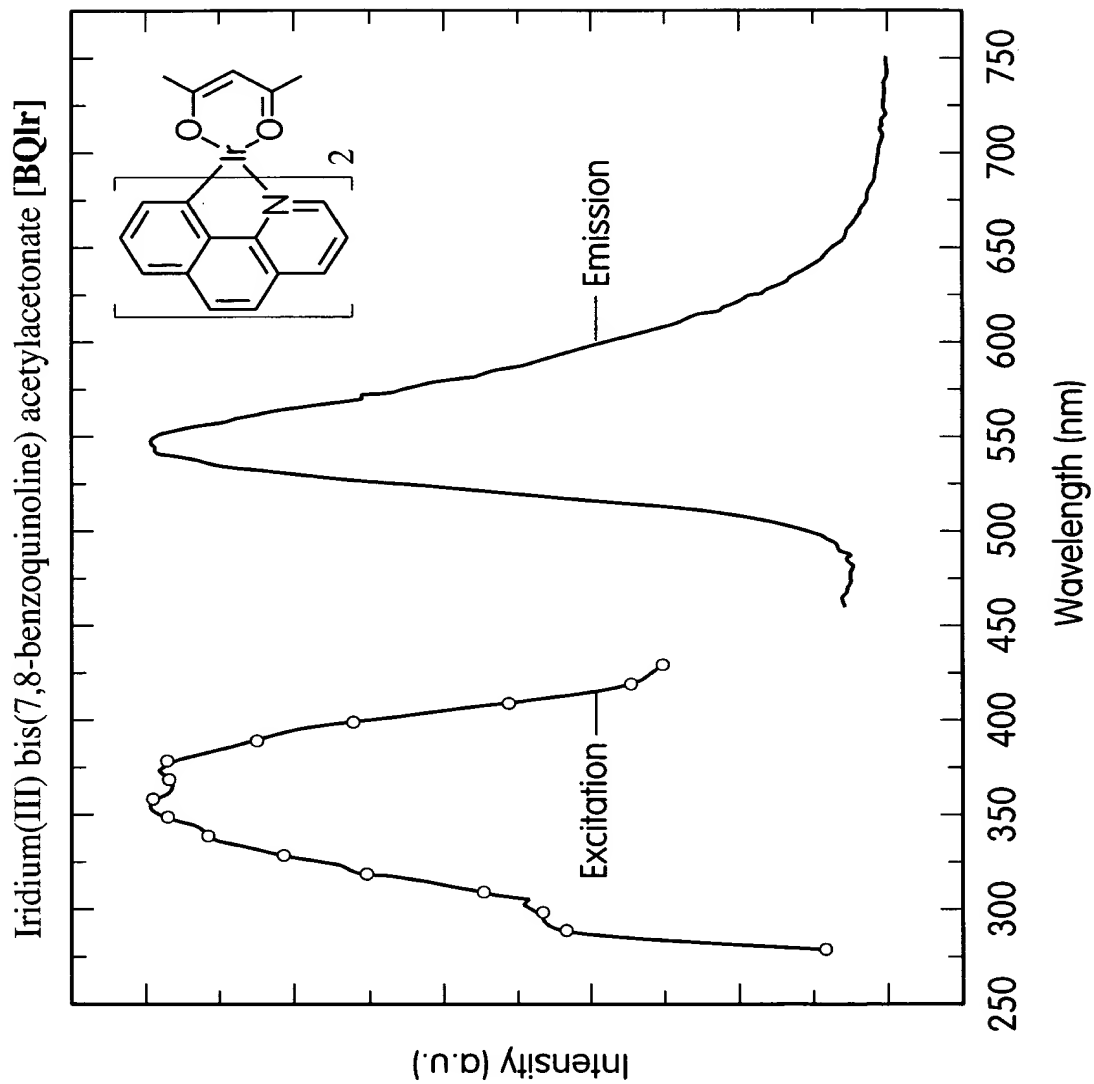


Fig. 24

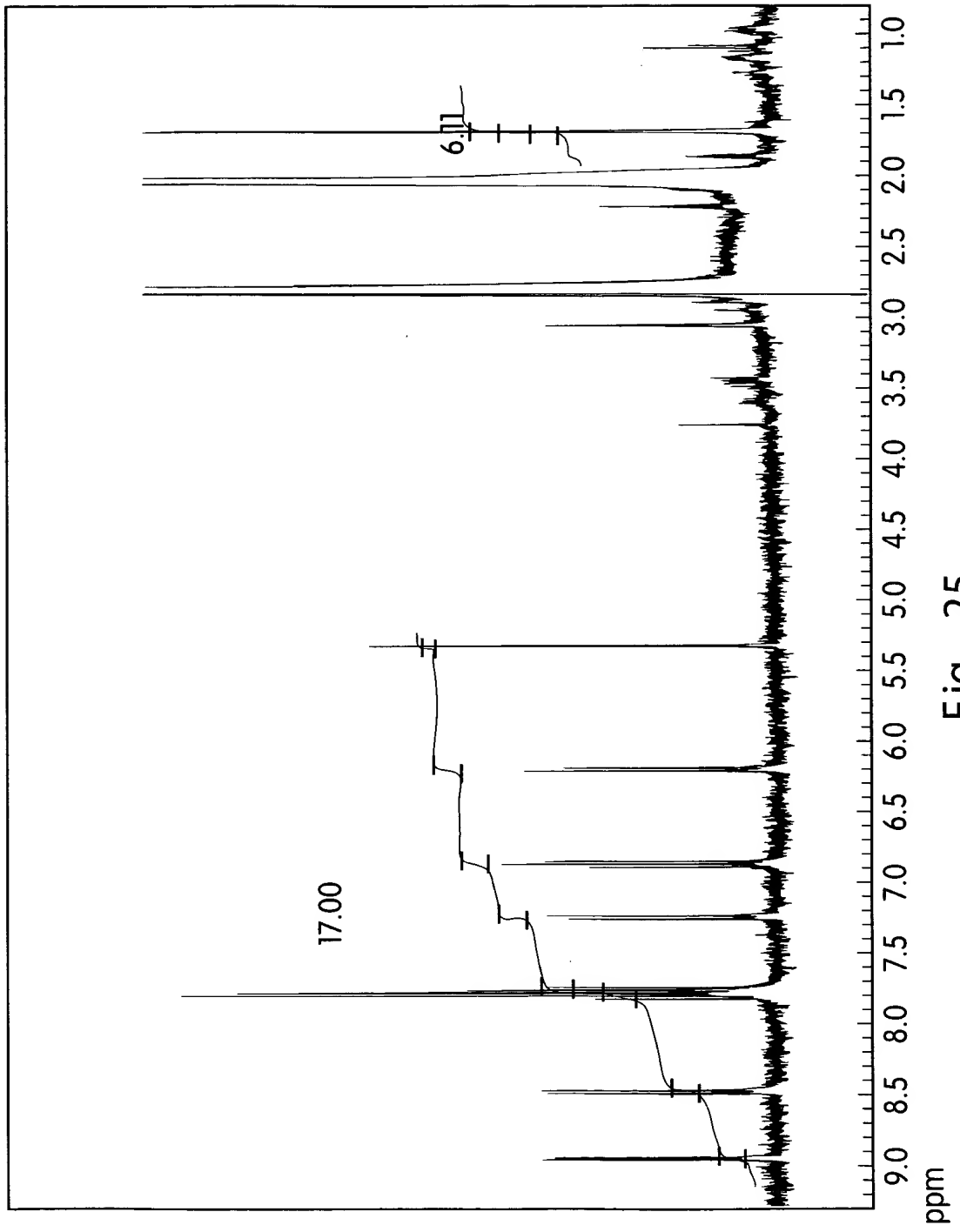


Fig. 25

Iridium(III) bis(7,8-benzoquinoline) hexafluoroacetylacetonate [BQIrFA]

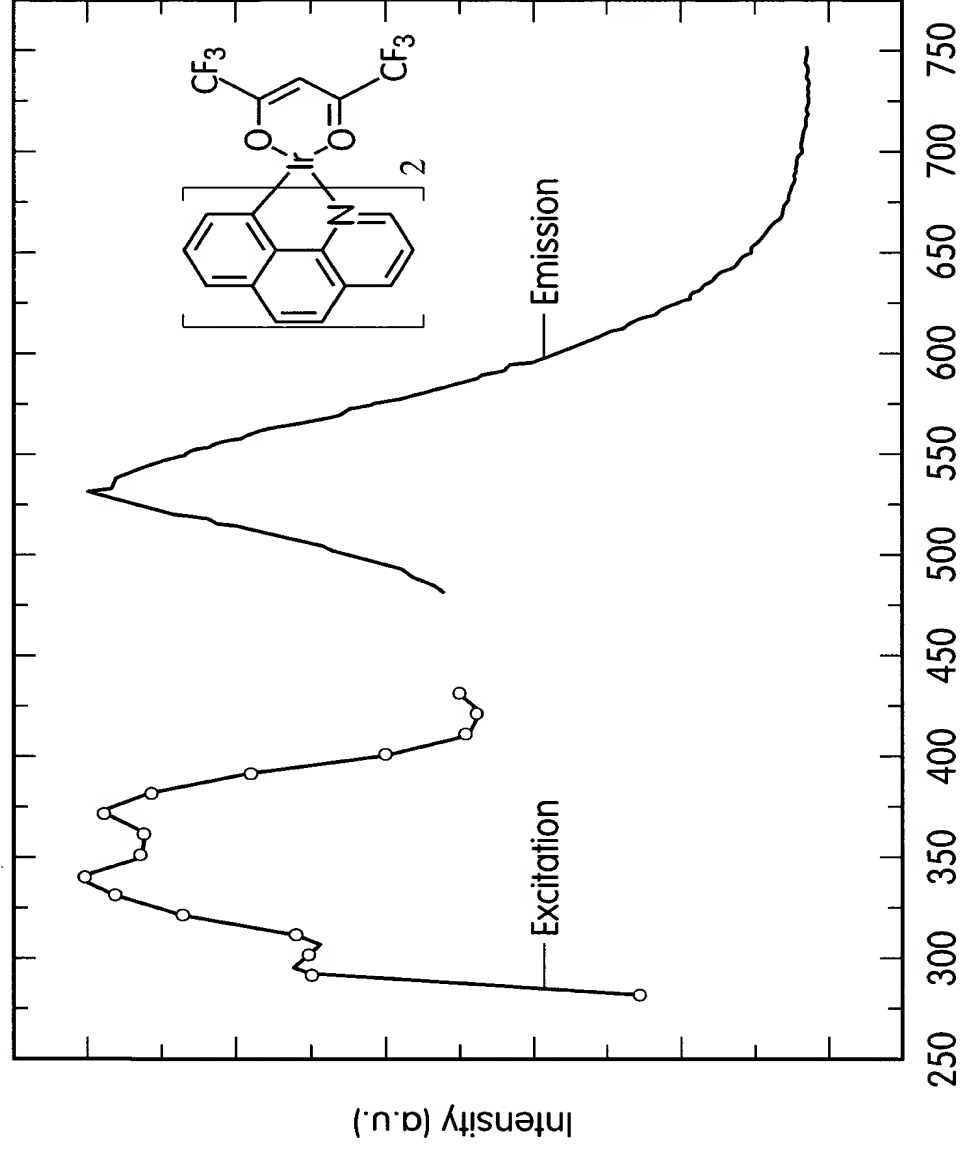


Fig. 26

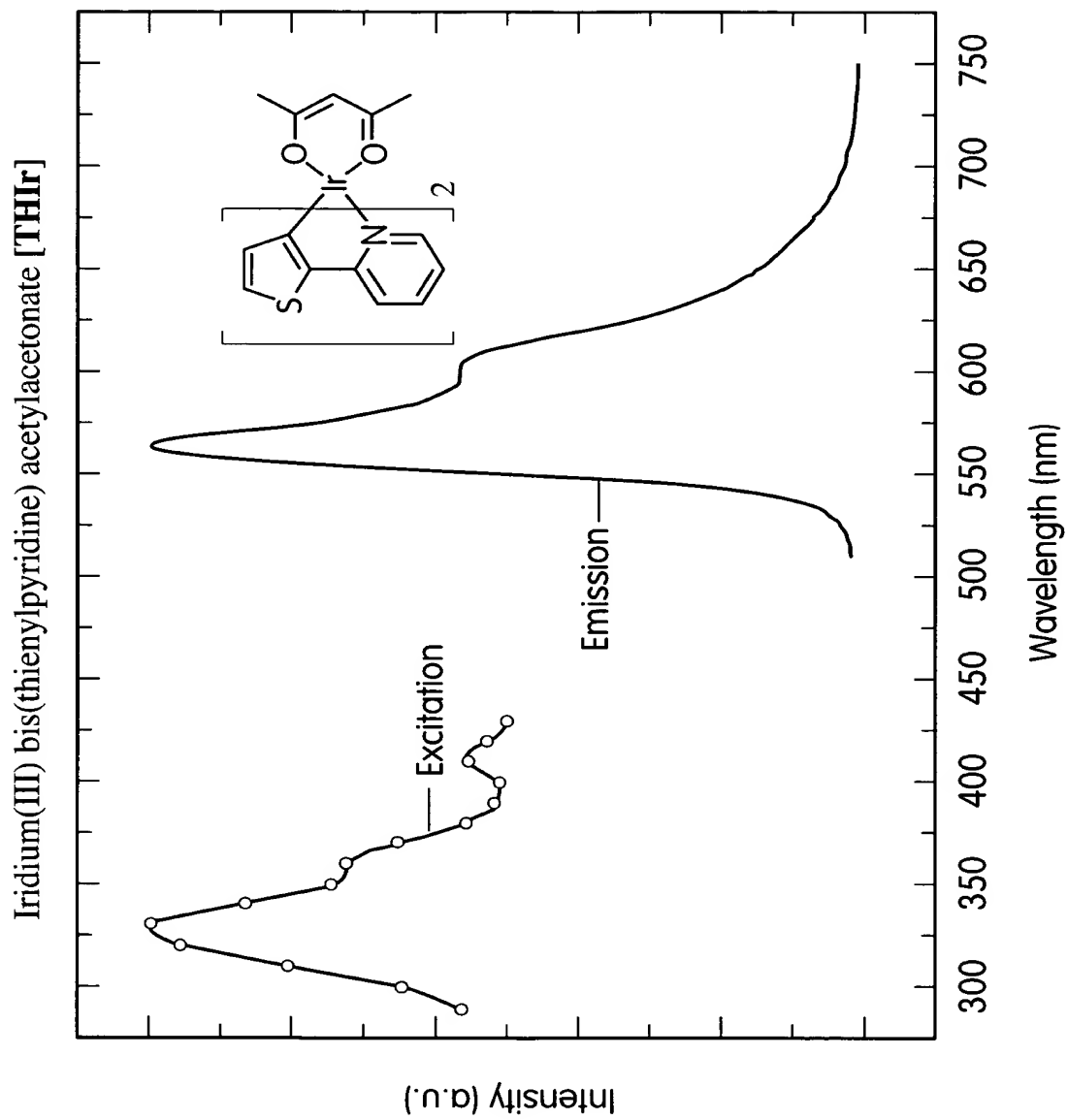


Fig. 27

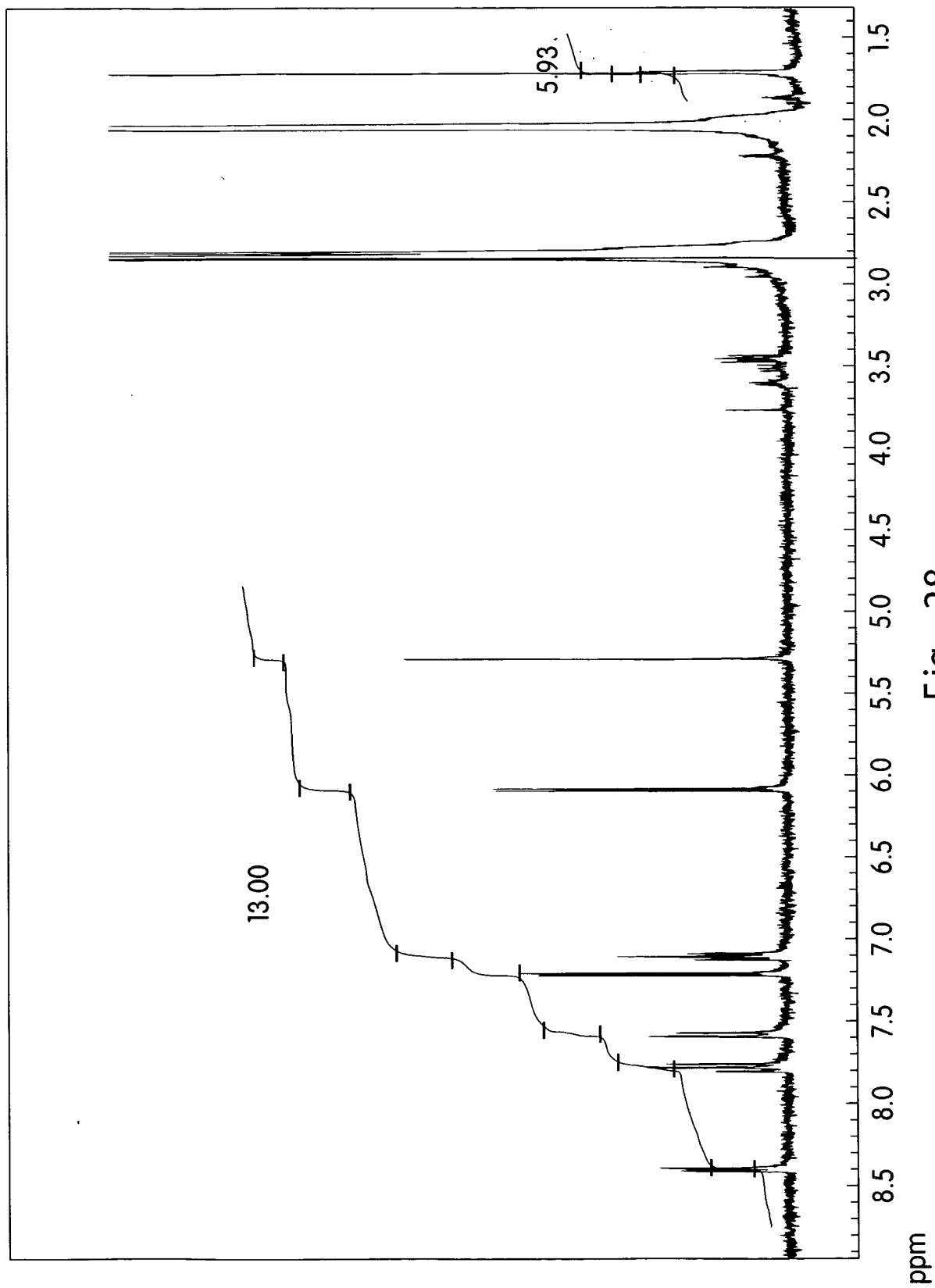


Fig. 28

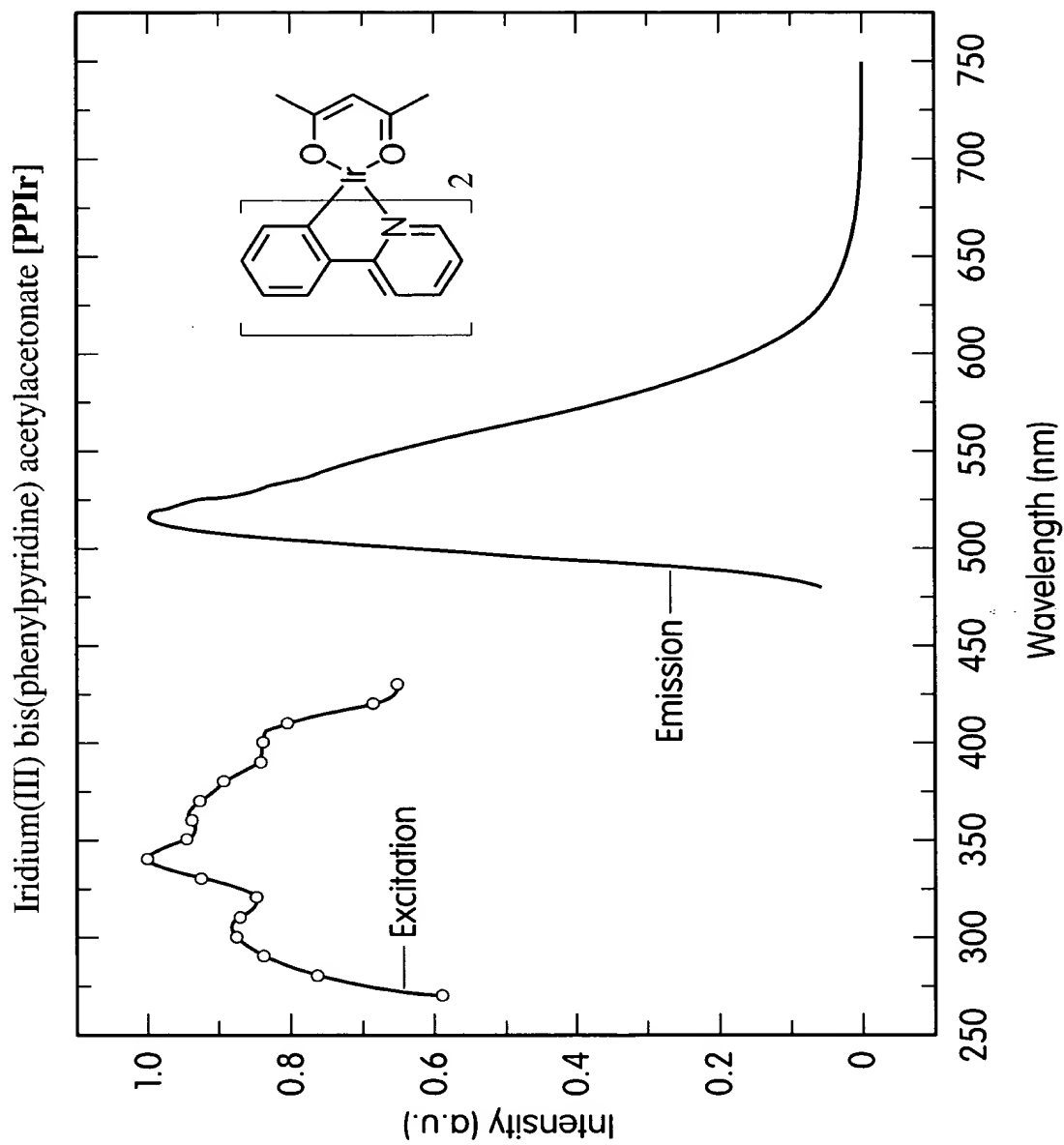


Fig. 29

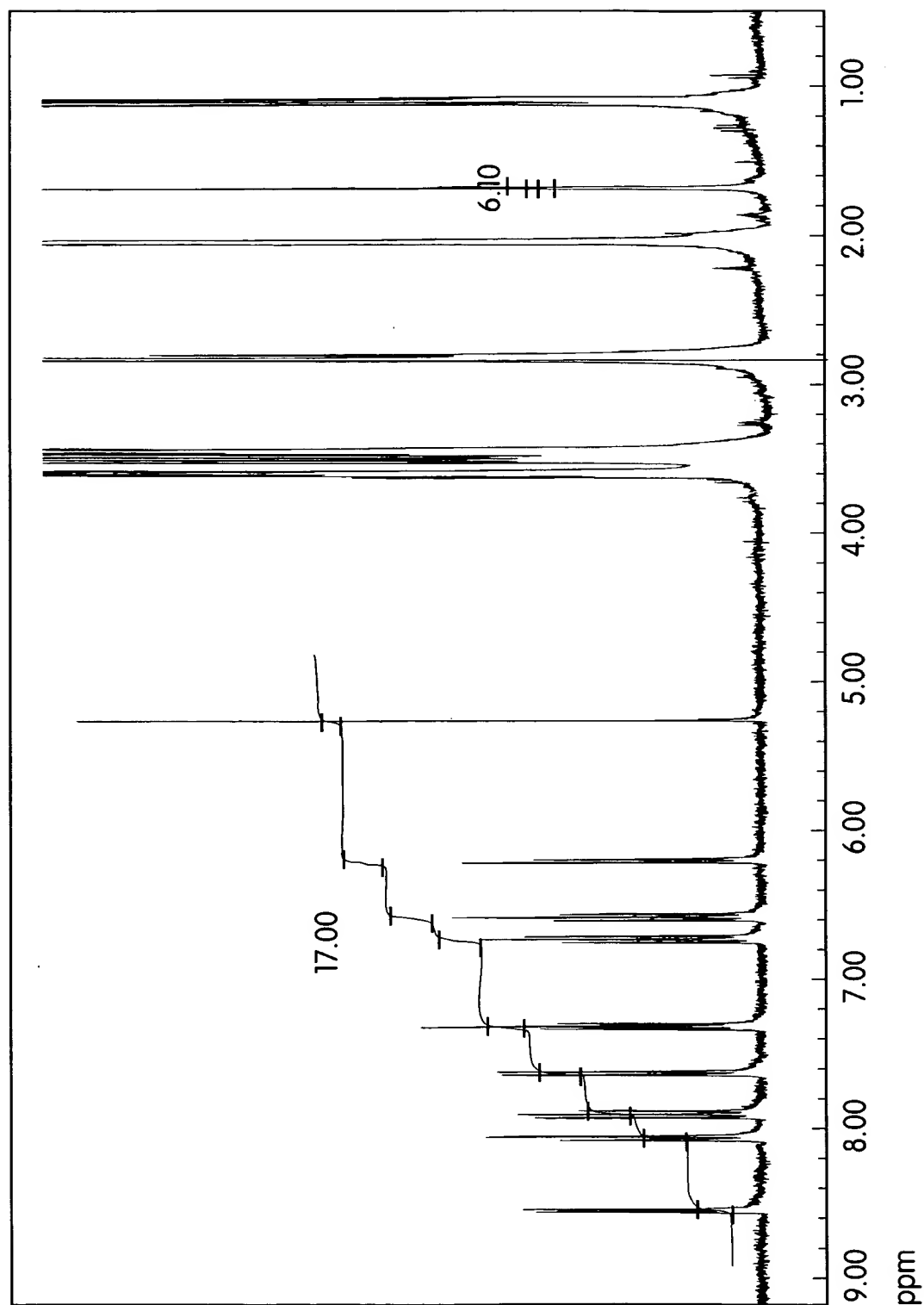


Fig. 30

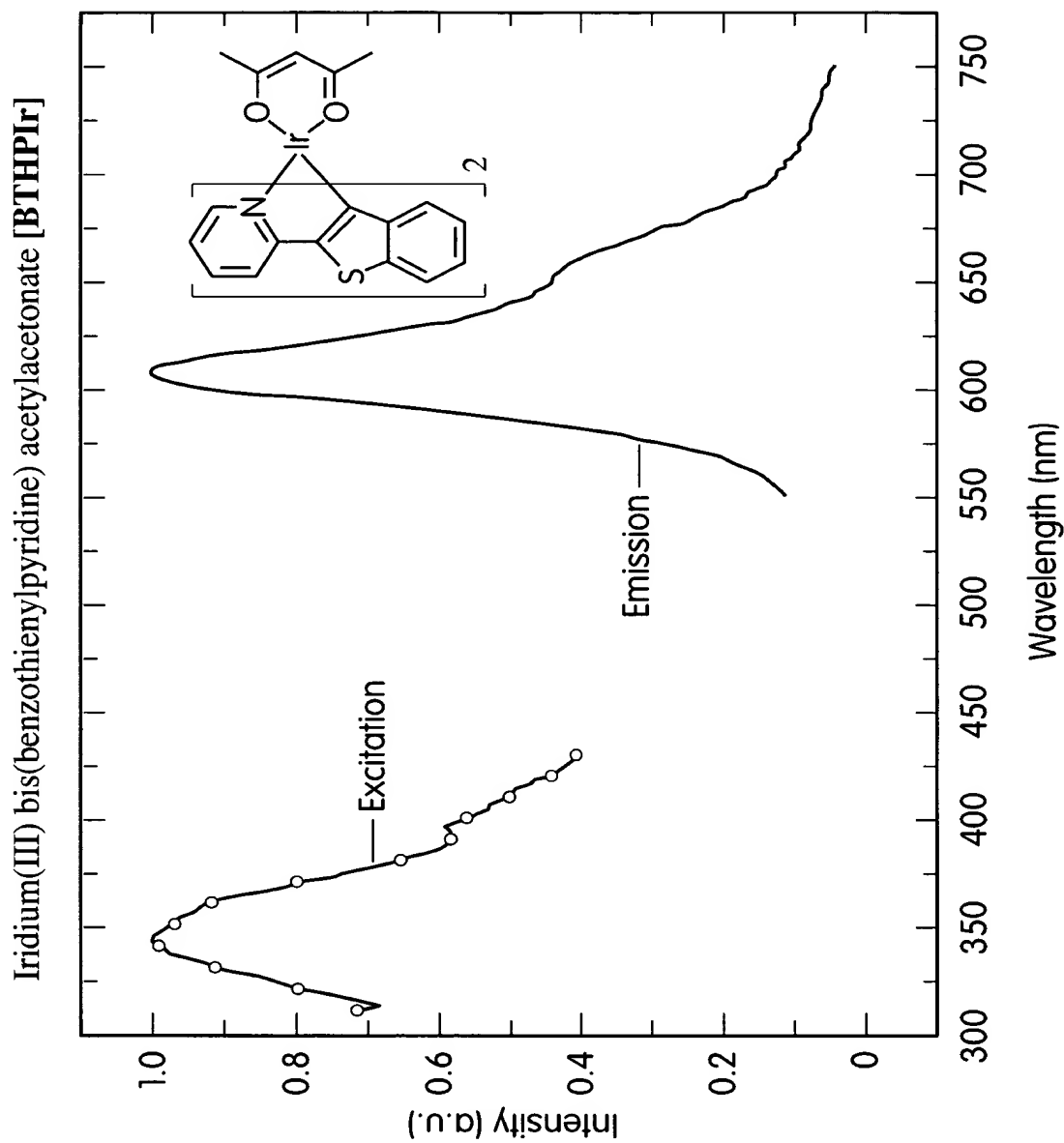


Fig. 31



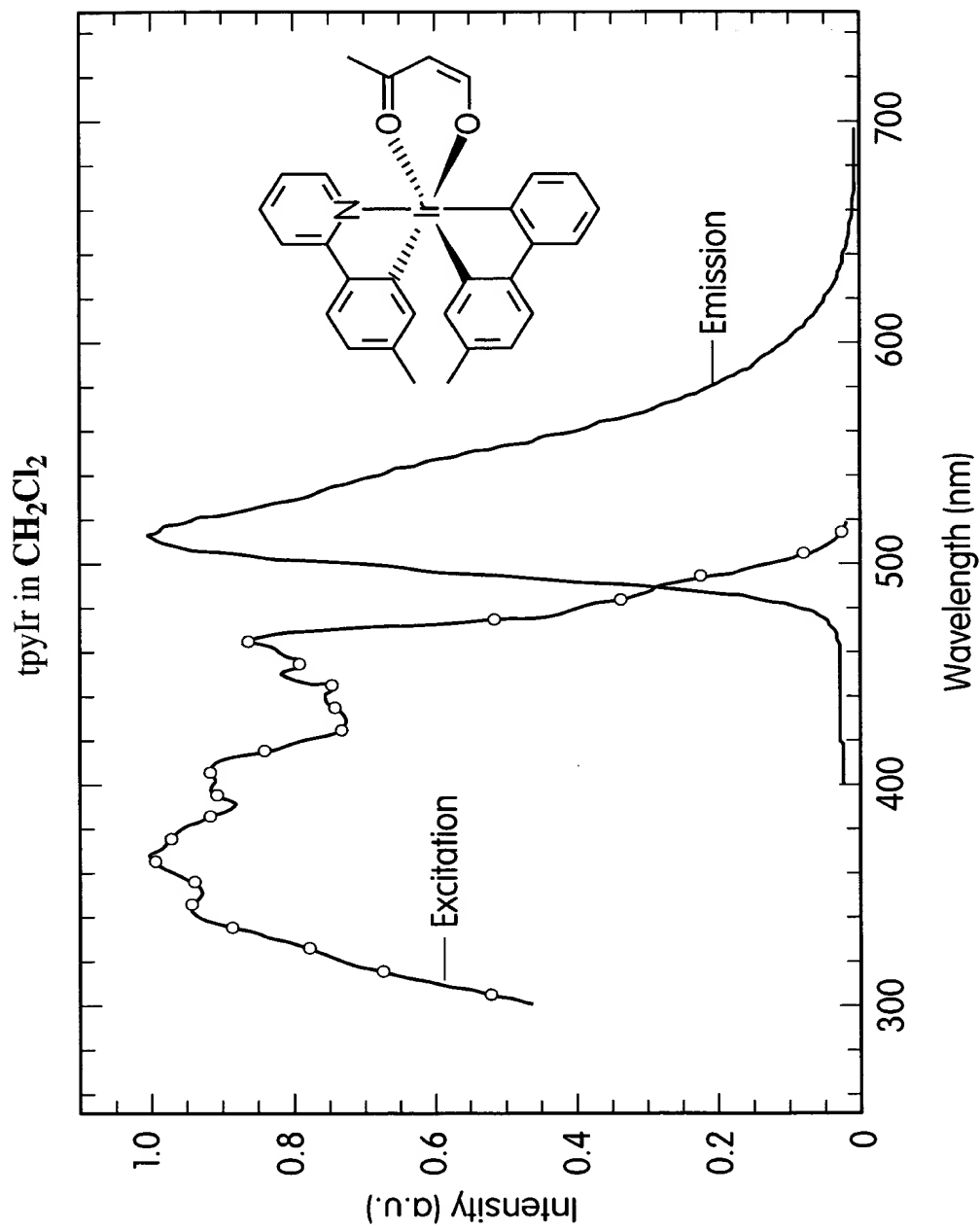


Fig. 32

Crystal structure of **tpylIr**

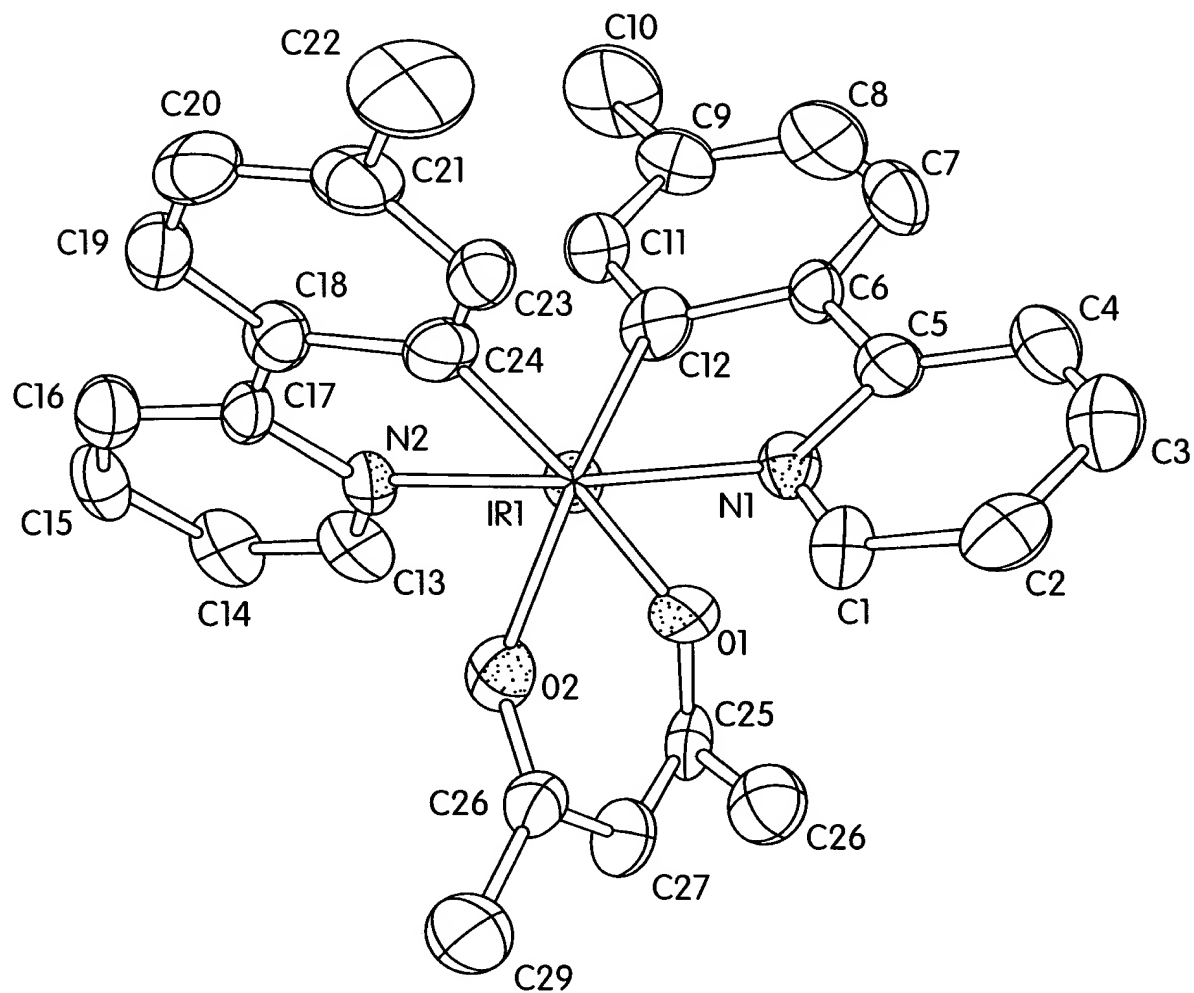


Fig. 33

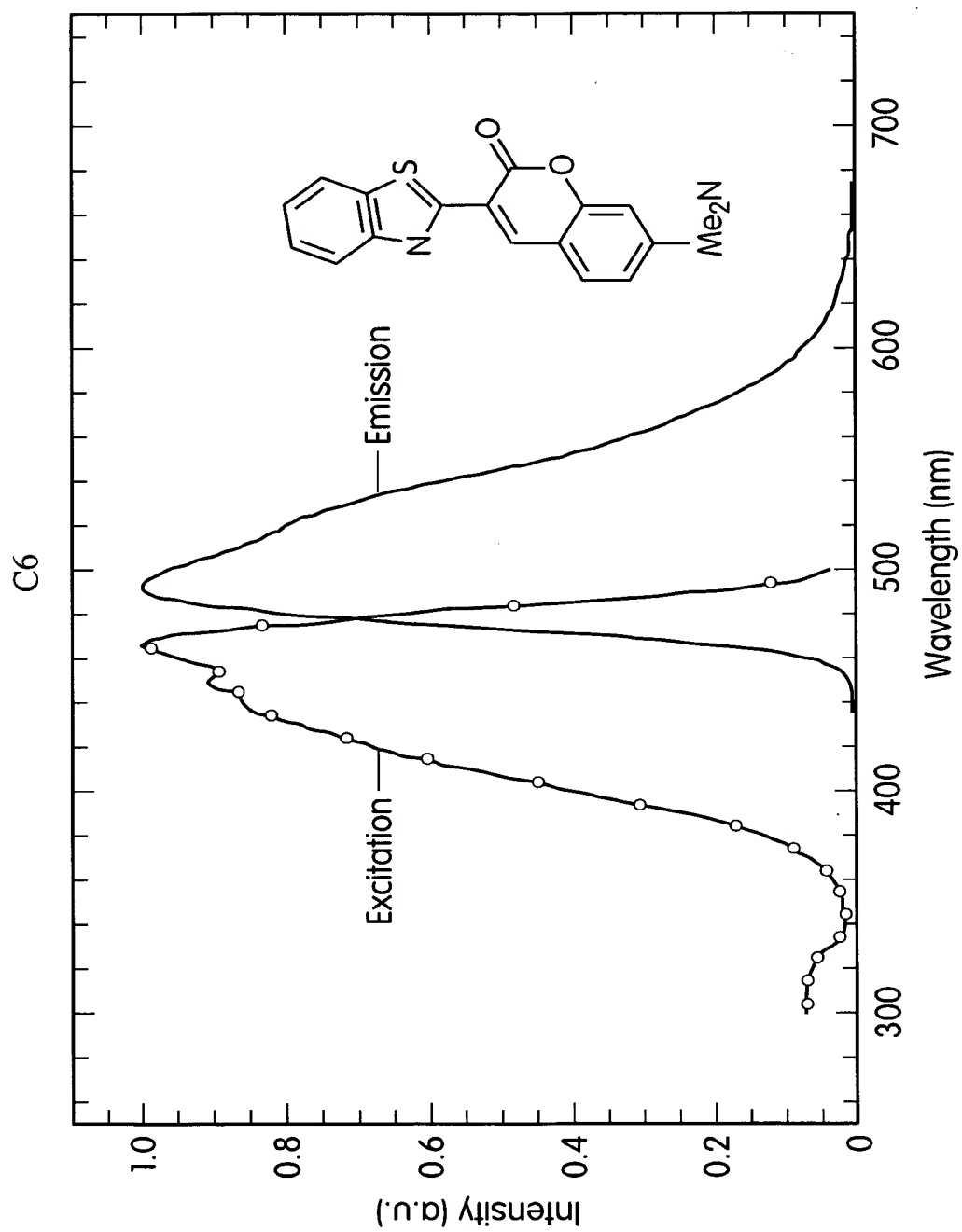


Fig. 34

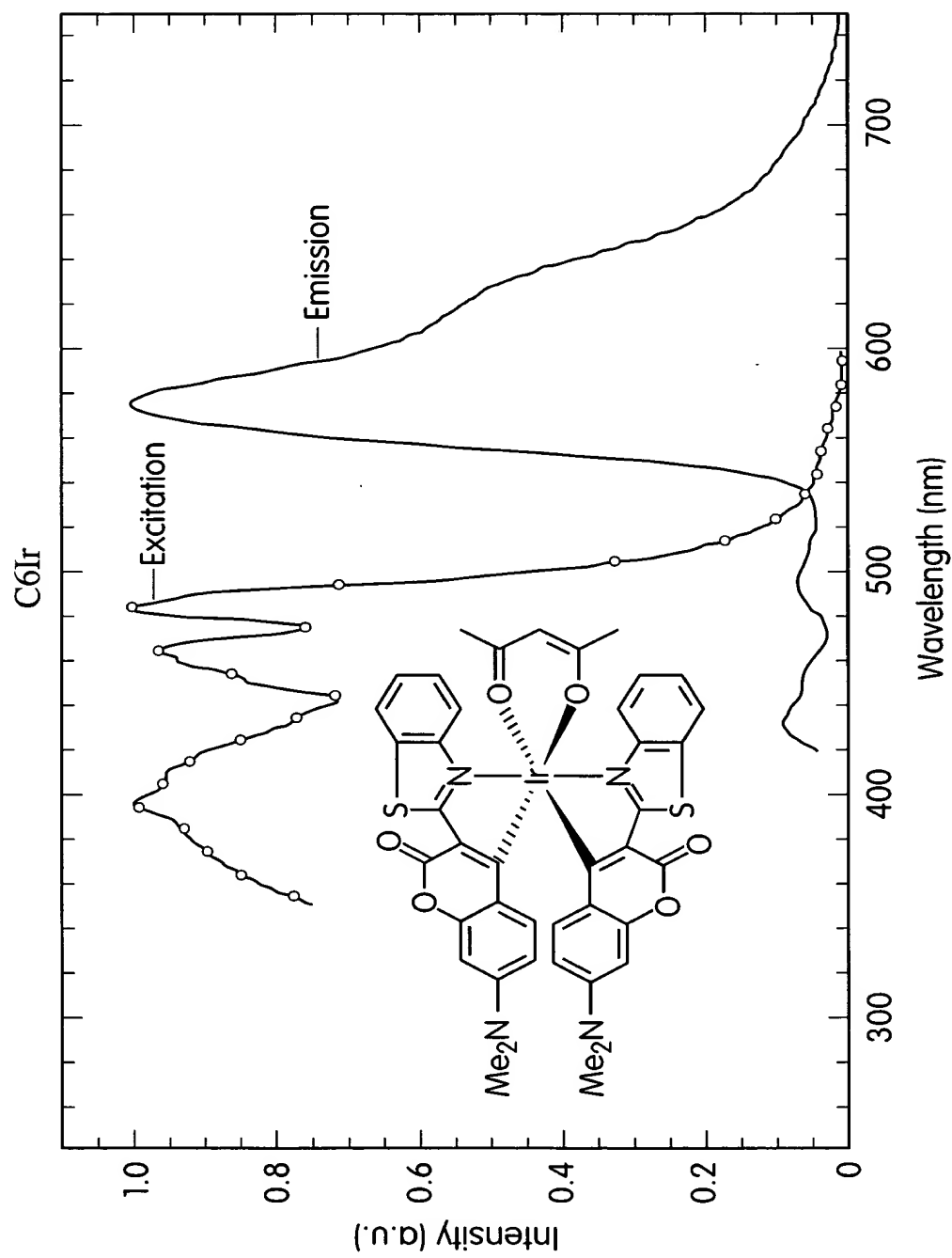


Fig. 35

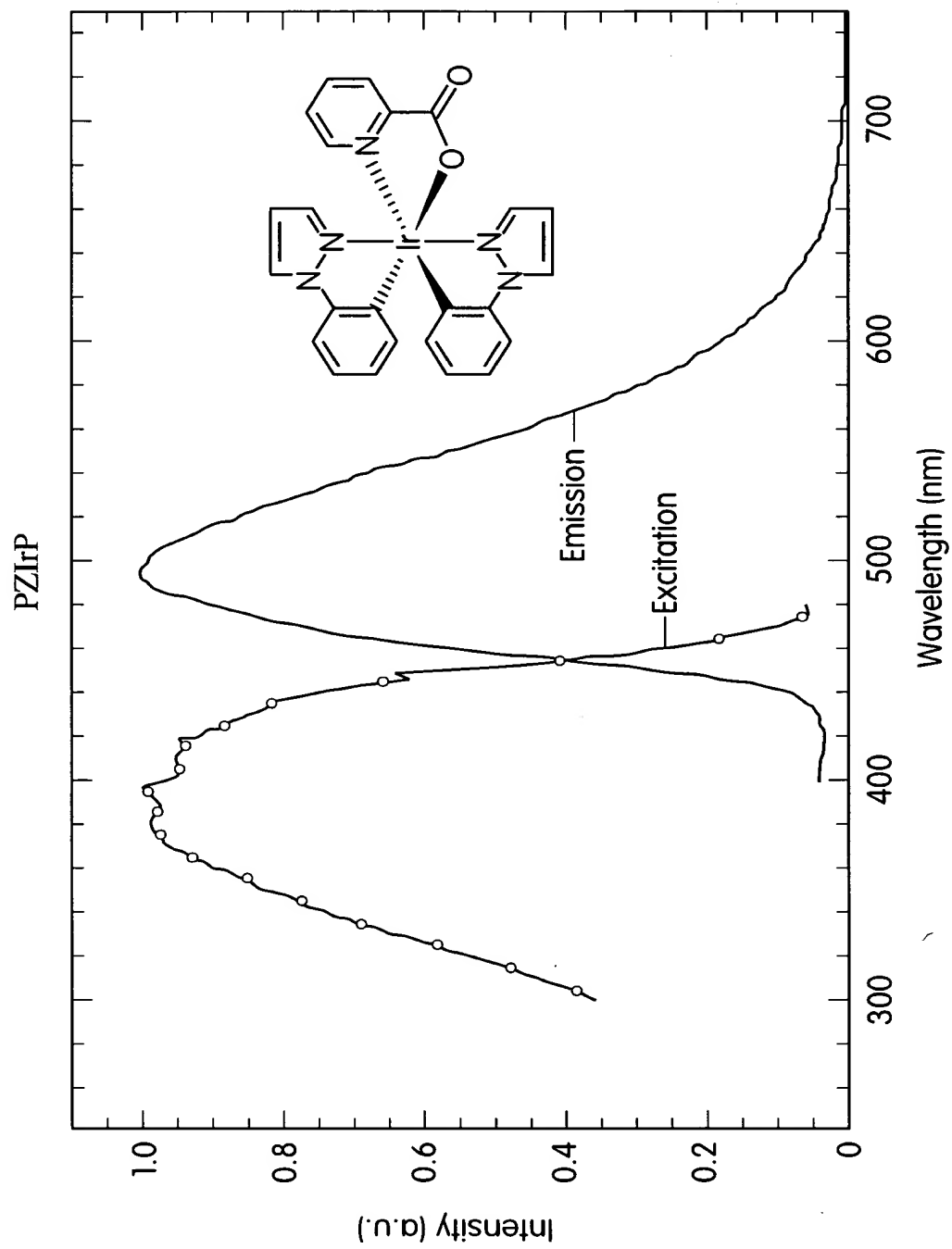


Fig. 36

Bis(2-(1-naphthyl)benzoxazole) acetylacetonate **BONIr**  
Solution spectra in CH<sub>2</sub>Cl<sub>2</sub> [life time = 1.4  $\mu$  sec]

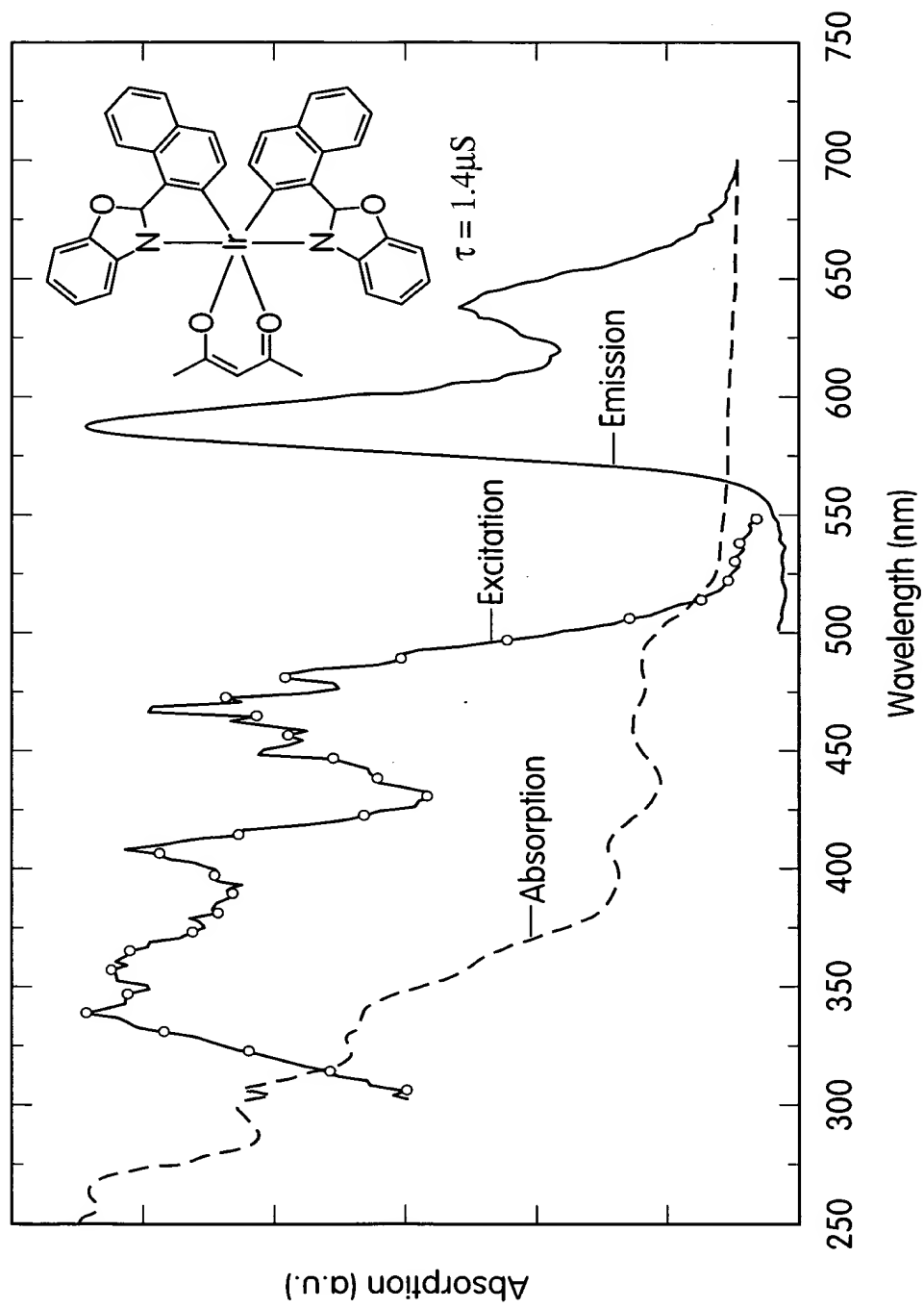


Fig. 37

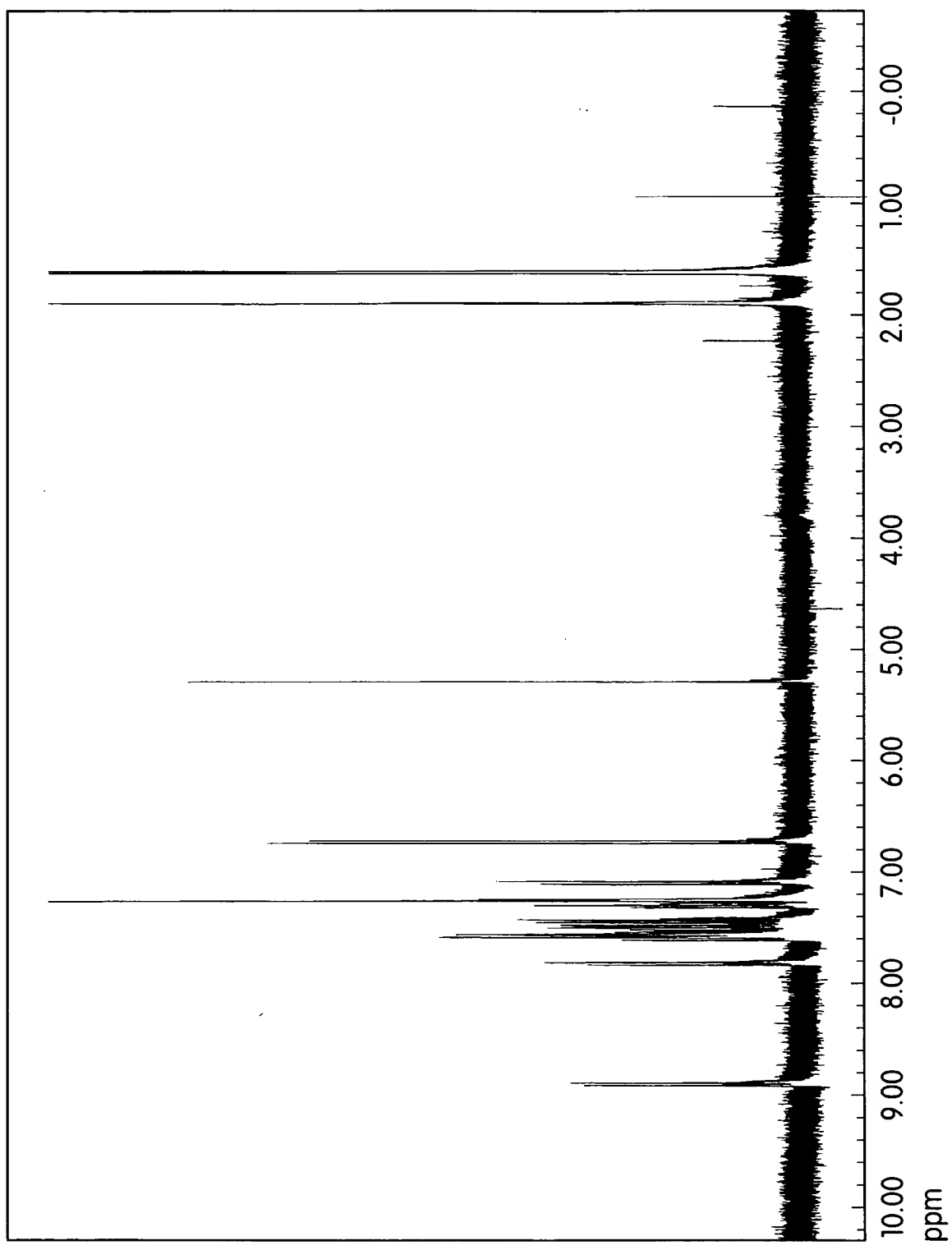


Fig. 38

Bis(2-phenylbenzothiazole)Iridium Acetylacetonate  
 Lifetime: 2 microseconds Solution Spectra ( $\text{CH}_2\text{Cl}_2$ ) BTIr

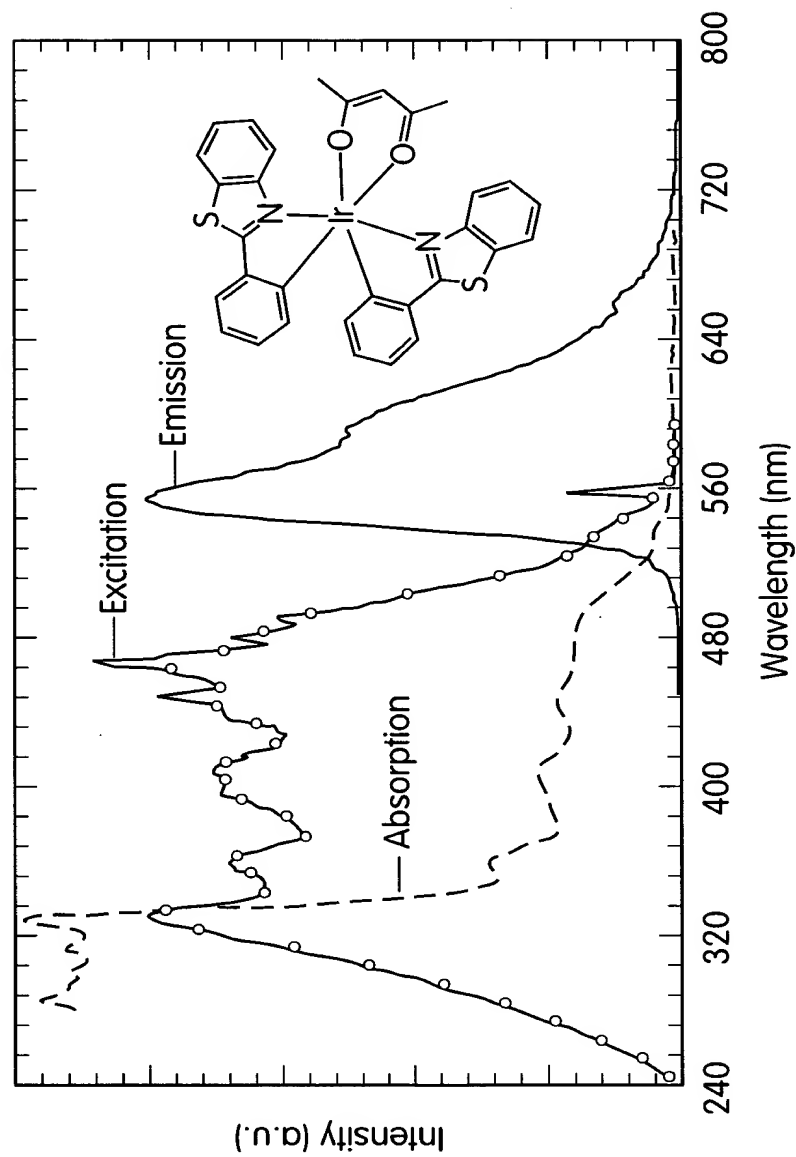


Fig. 39



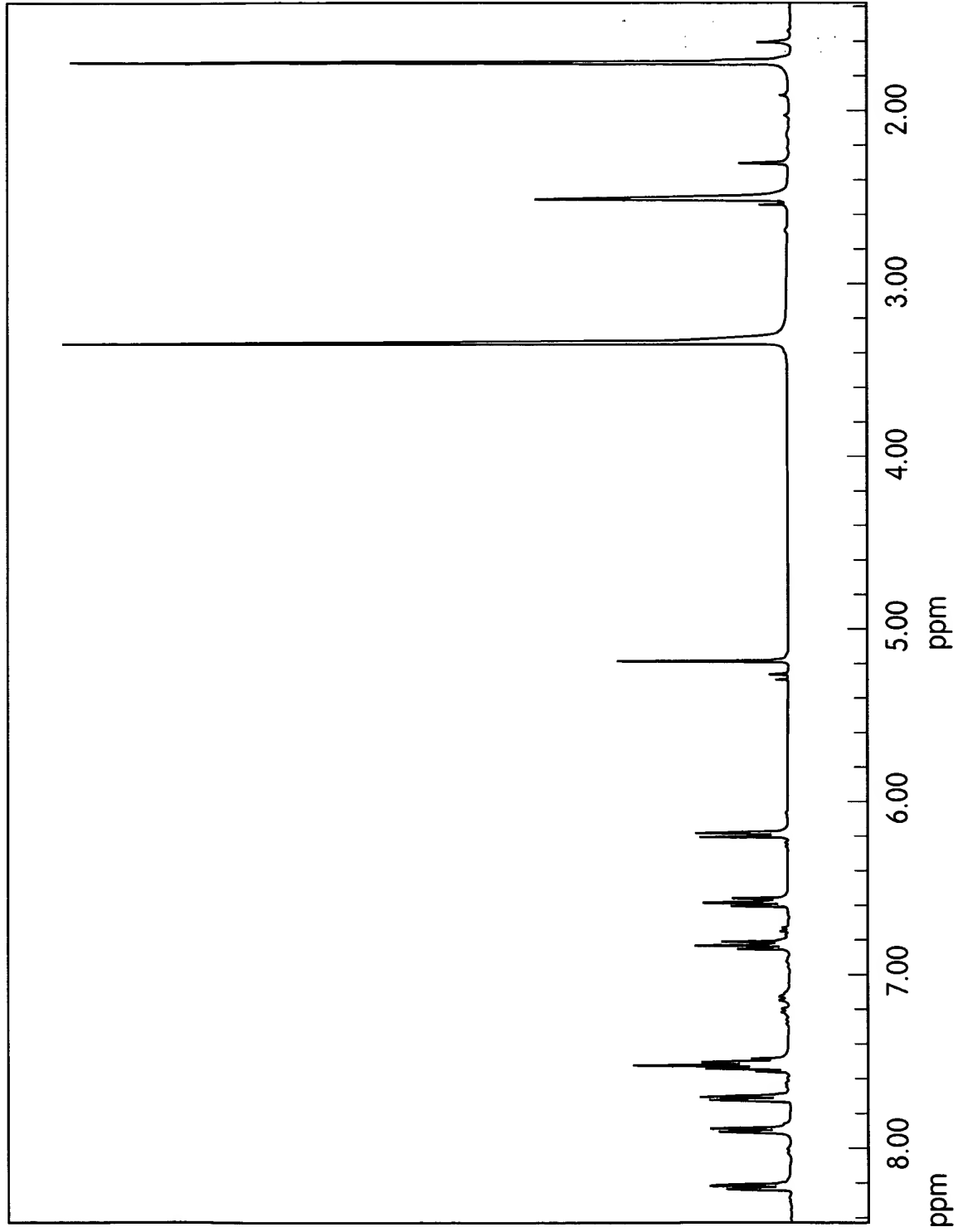


Fig. 40

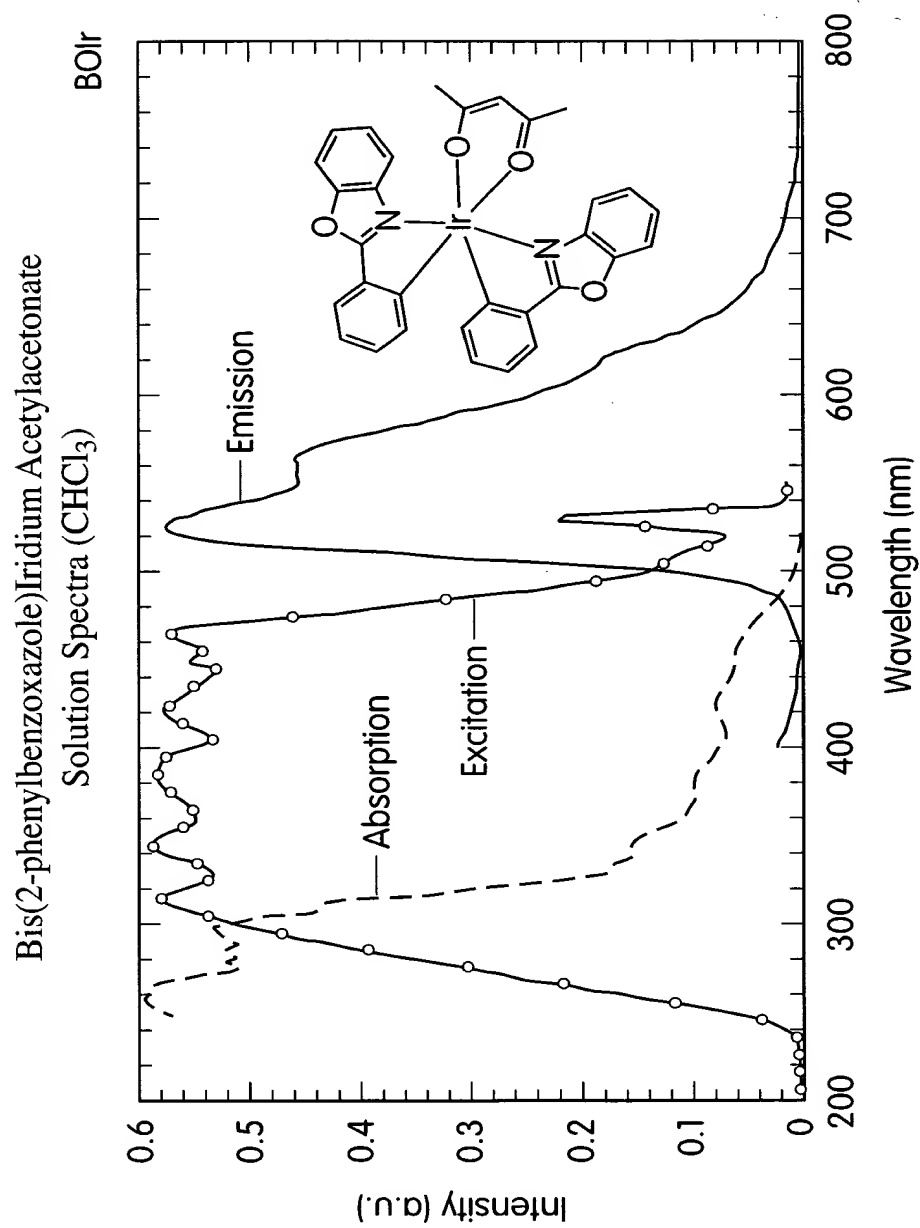


Fig. 41

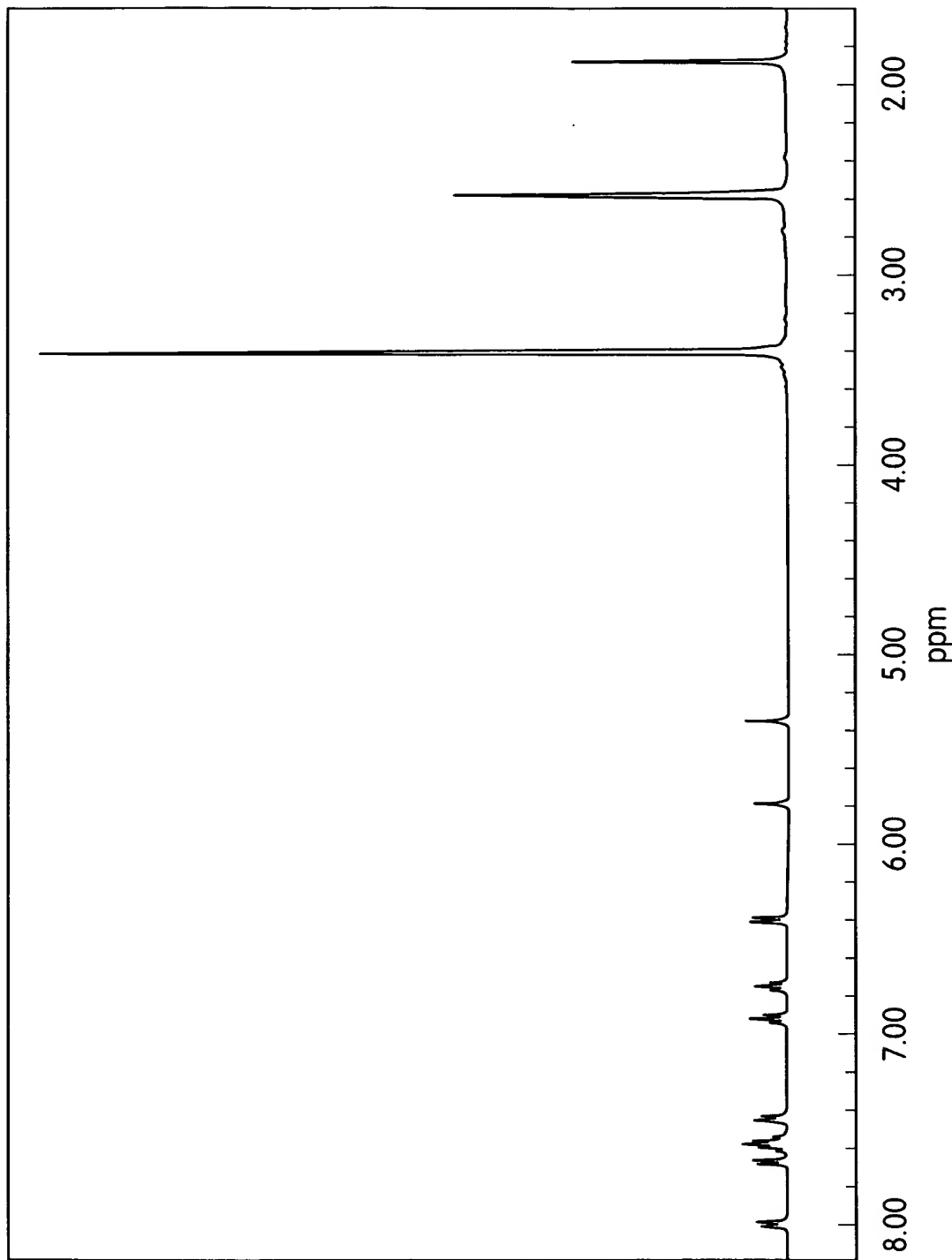


Fig. 42

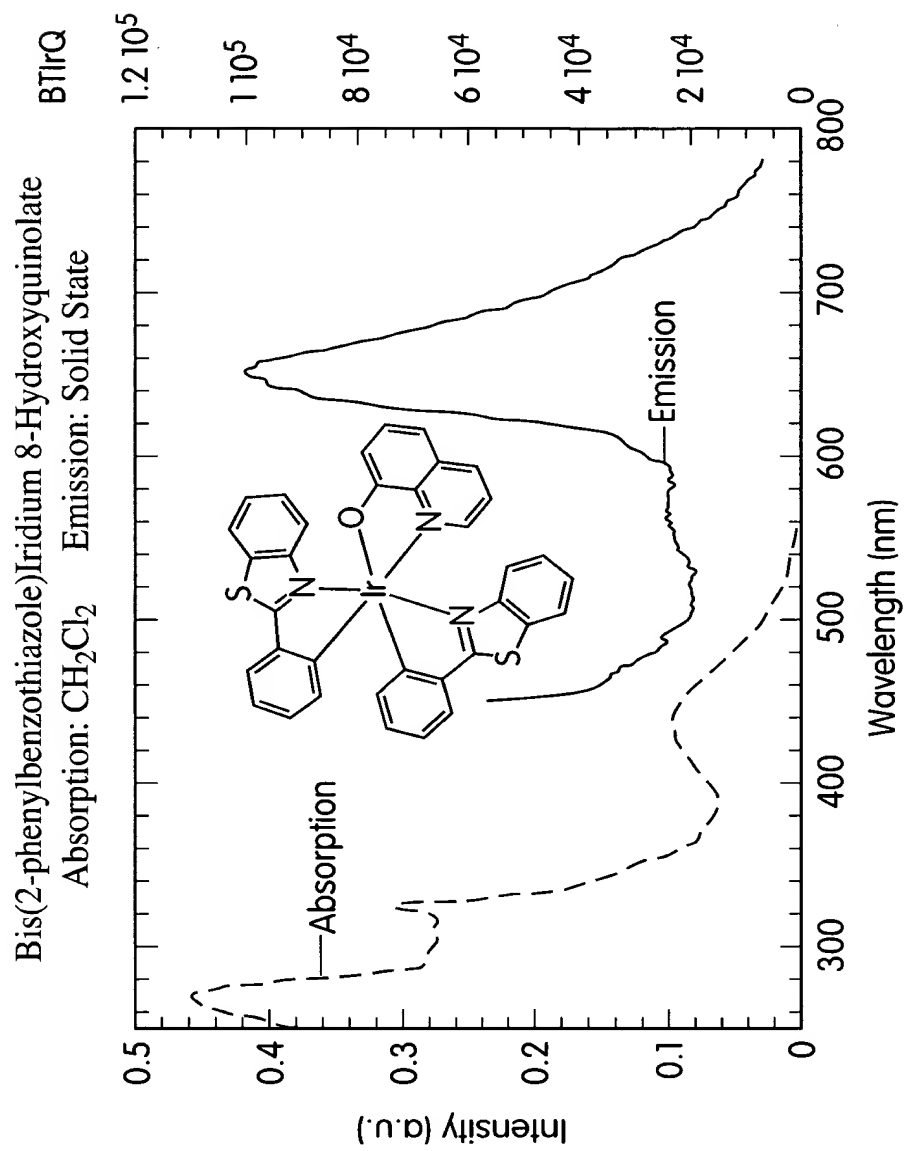


Fig. 43

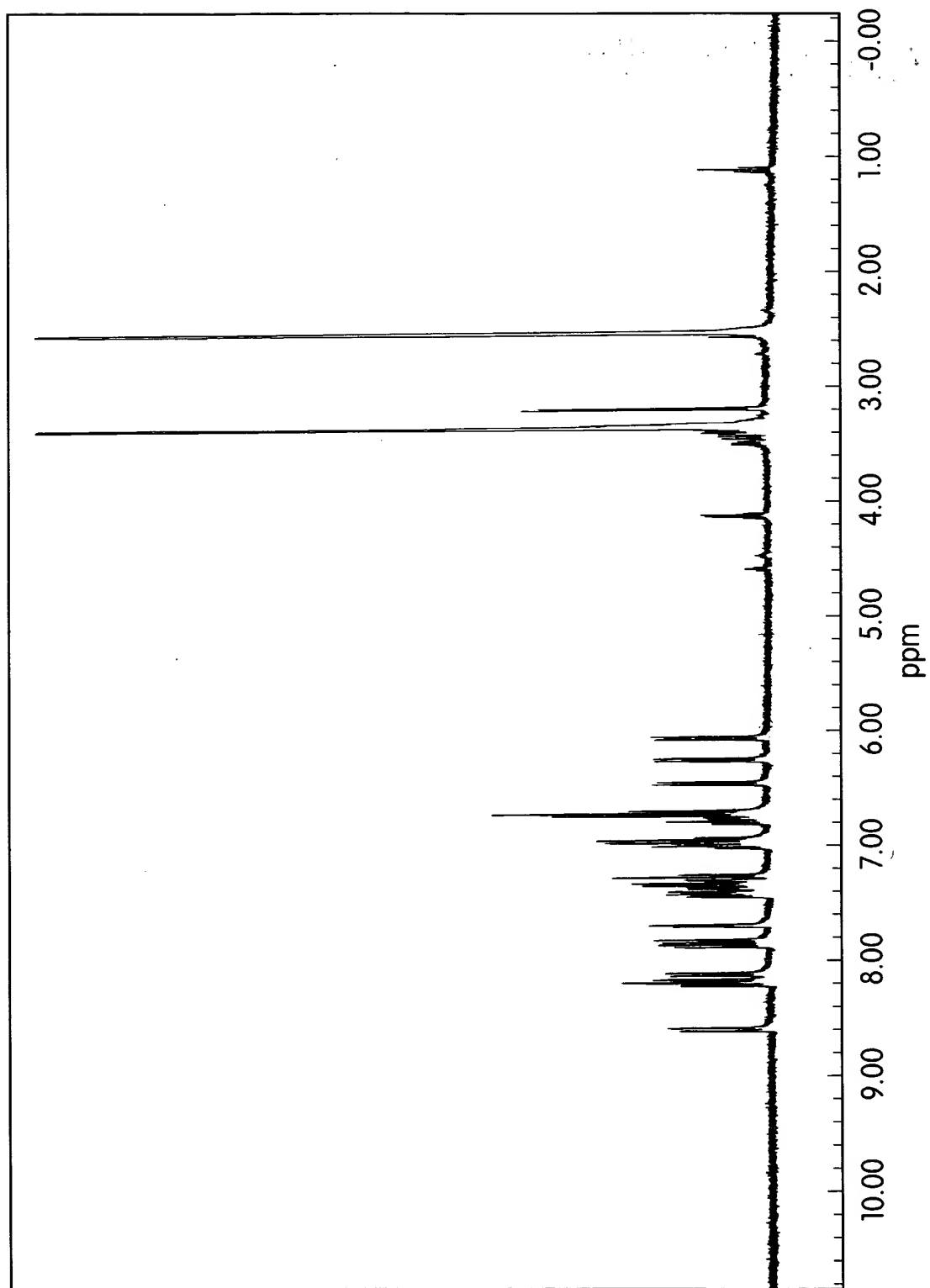


Fig. 44

Bis(2-phenylbenzothiazole)Iridium Picolinate  
Solution Spectra ( $\text{CH}_2\text{Cl}_2$ )

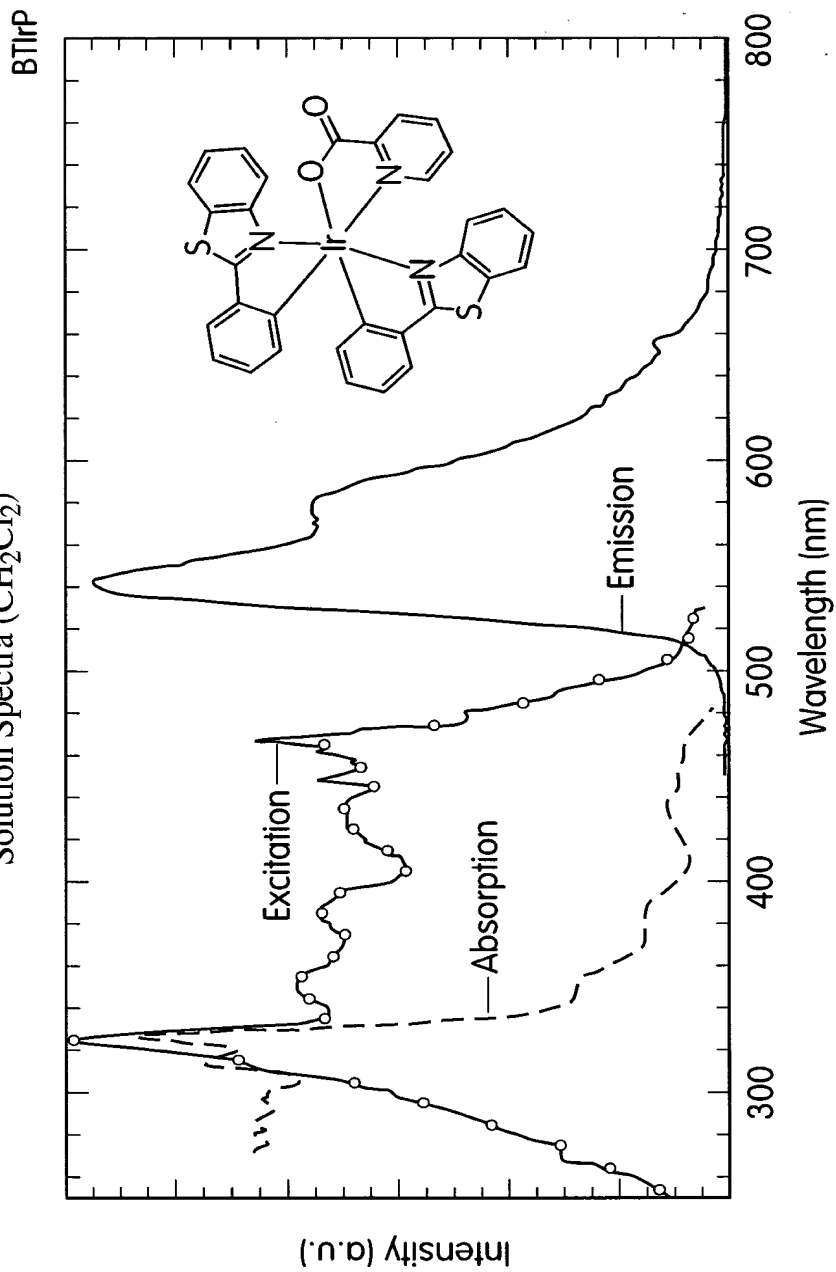


Fig. 45

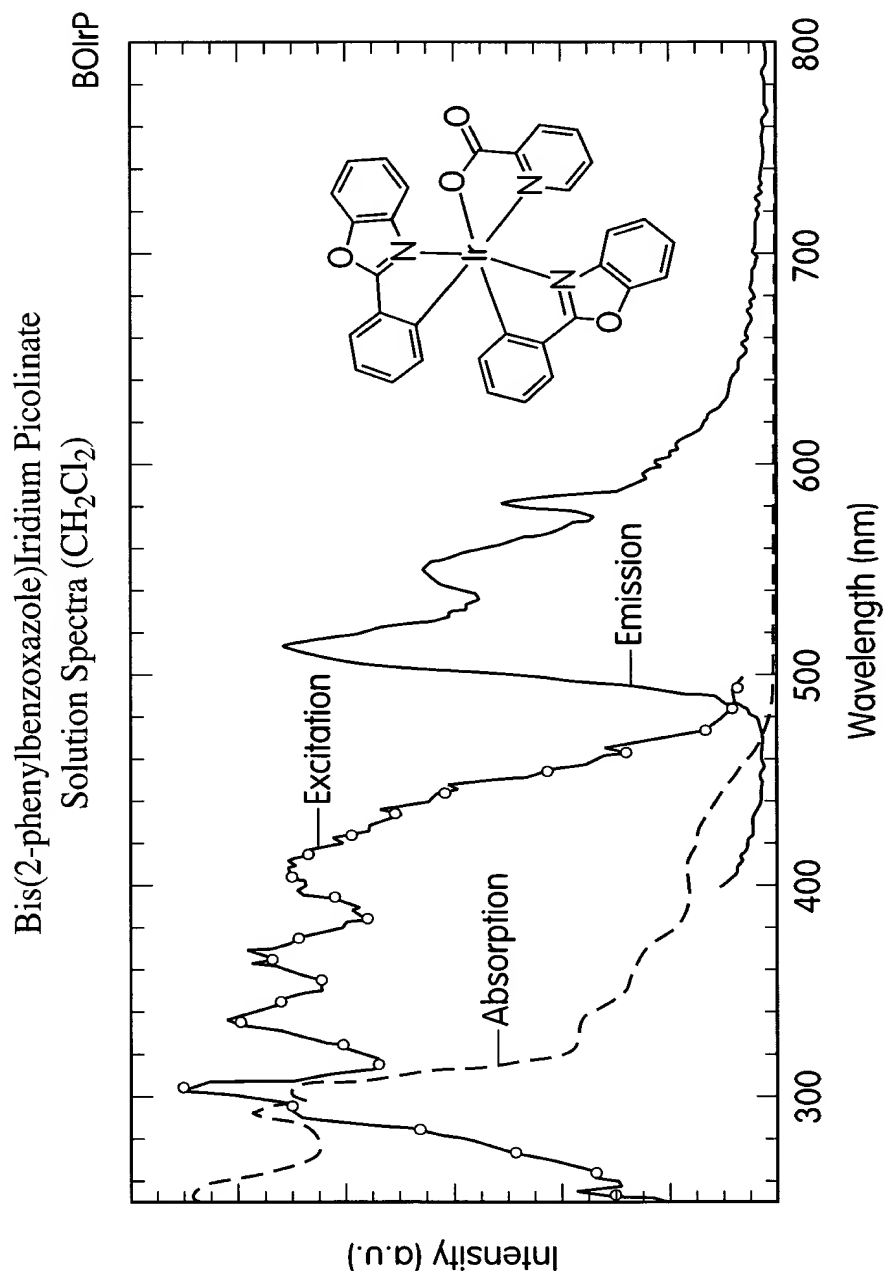


Fig. 46

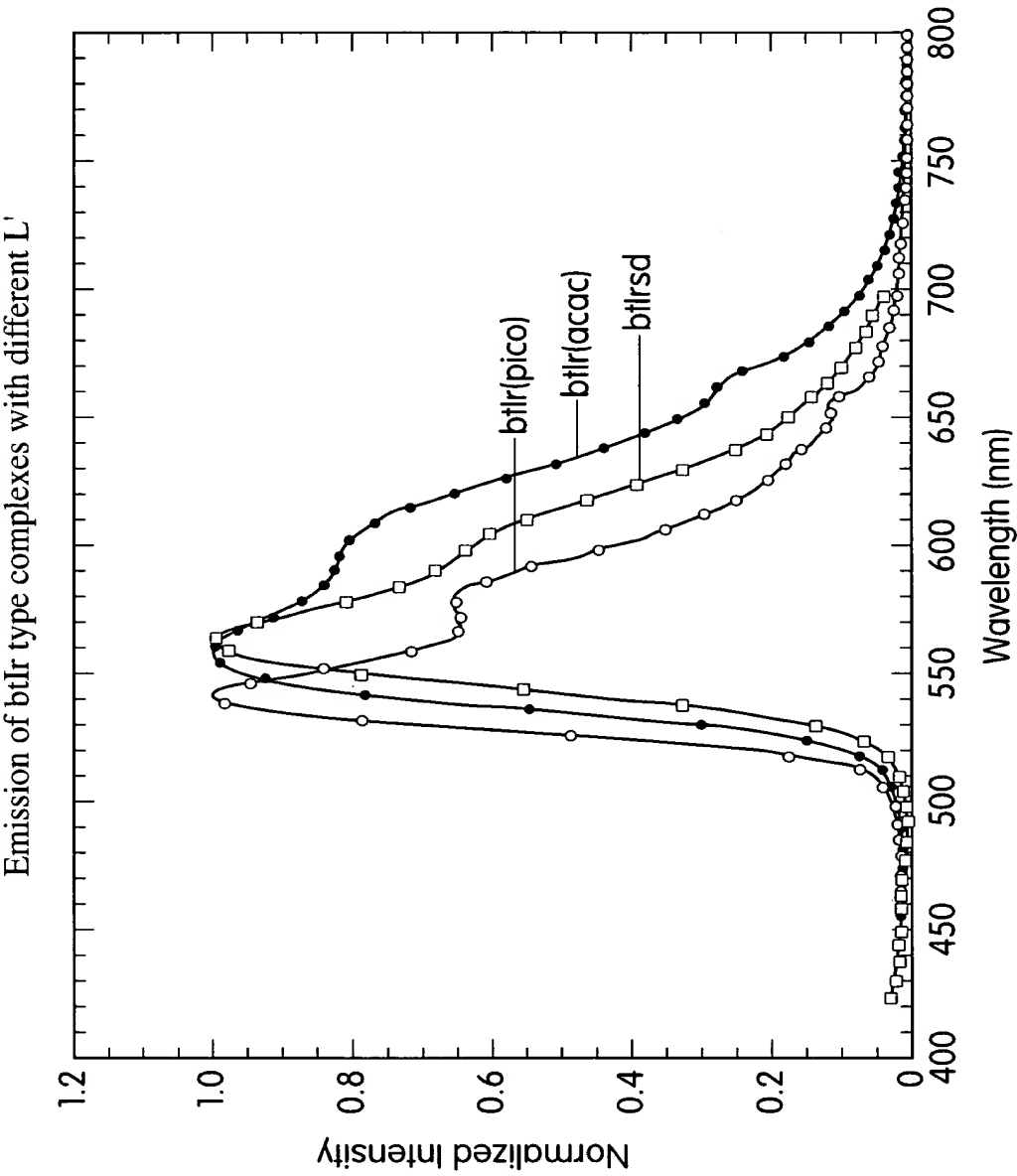


Fig. 47



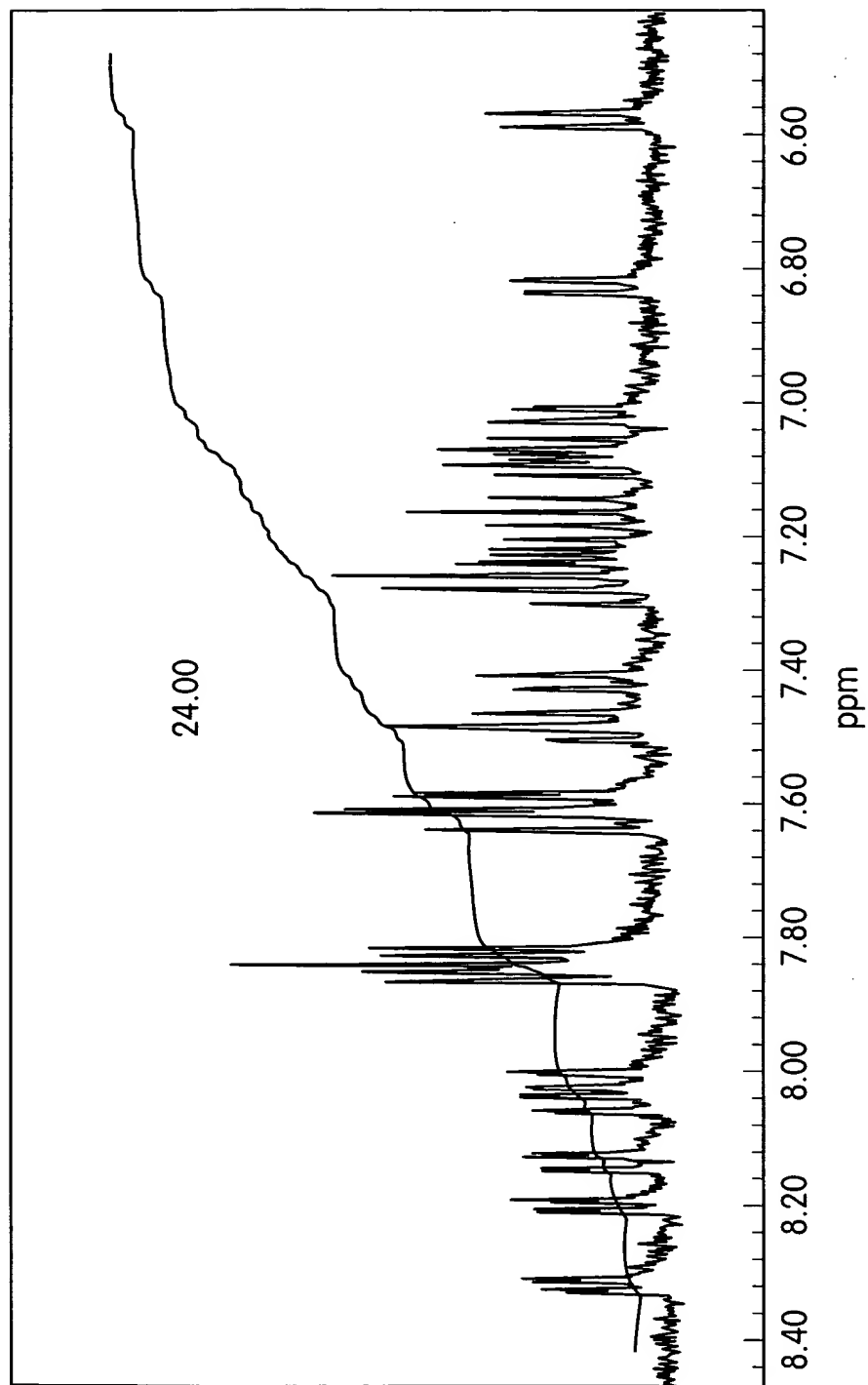
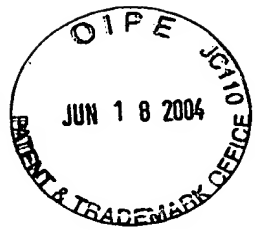
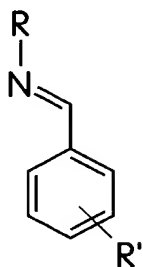
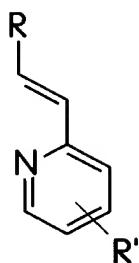


Fig. 48

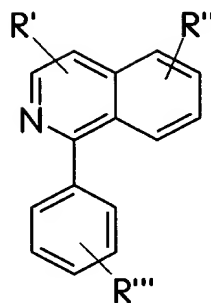
**other L ligands**



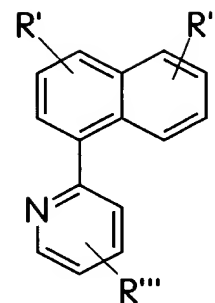
phenylimines



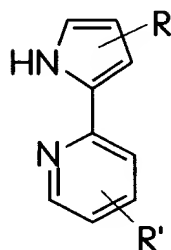
vinylpyridines



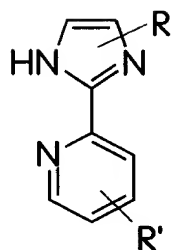
arylquinolines



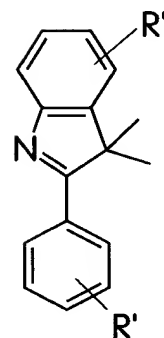
pyridyl naphthalenes



pyridylpyrroles

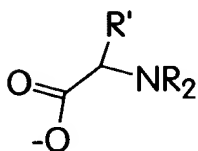


pyridylimidazoles

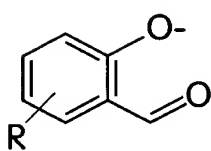


phenylindoles

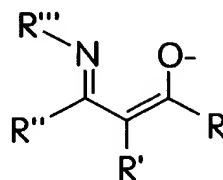
**other X ligands**



aminoacids



salicylaldehydes



iminoacetates

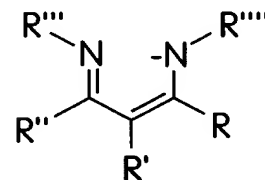
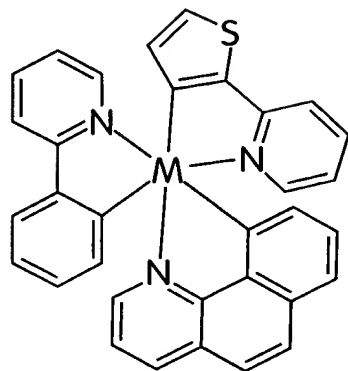


Fig. 49

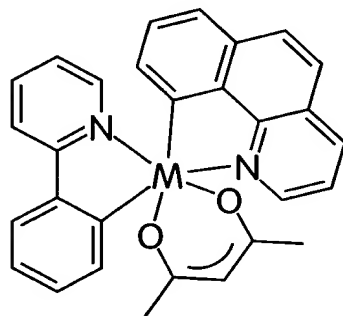
Fig. 50

**LL'L'M**

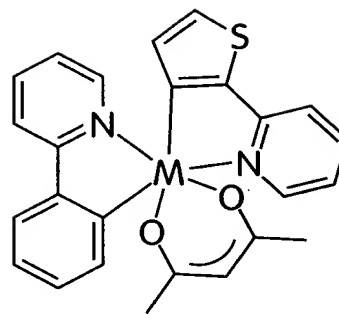


**M(ppy)(bq)(thpy)**

**LL'MX**

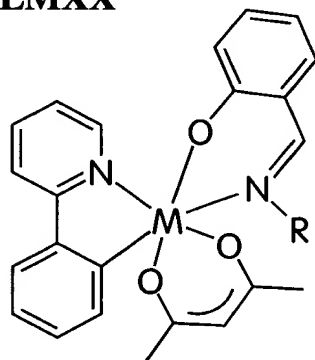


**M(ppy)(bq)(acac)**



**M(ppy)(thpy)(acac)**

**LMXX'**



**M(ppy)(sd)(acac)**